

ATTITUDES OF COMMUNITY COLLEGE STUDENTS  
TOWARD PEOPLE WITH DISABILITIES

By  
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I dedicate this paper to my Mother, who listened to me and put things in perspective. I count my blessings every day that I have her in my life. To my Dad, for making me laugh and supporting me in all my educational pursuits. To my sister Molly for giving me kisses when I needed them. To my brother Tonto for being my angel. To my friends and family for making me smile and giving me encouragement when I needed it. To the faculty and staff at Santa Fe Community College for making me part of their family. To God for making all things possible. To myself for having the will, determination, and sanity to complete this paper.

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The purpose of this study was to examine the attitudes of community college students toward persons with disabilities and to see if certain personality characteristics made a person more or less likely to have a favorable or unfavorable attitude toward a person with a disability

One hundred fifty-five students at a central Florida community college participated in this study. The 16 Personality Factor Questionnaire (16PF) was used to study personality traits. The Situational Scale-Handicapped (SAS-H) was used to determine a favorable or unfavorable attitude toward persons with disabilities. A demographic questionnaire solicited additional information including gender, ethnicity, political affiliations, religion, and type of community in which the participant was raised. Data were analyzed using descriptive statistics (means, frequencies, and percentages), correlation, and analysis of variance (ANOVA).



The results revealed significant statistical support for the relationship between gender and attitudes toward persons with disabilities. Relationships were also demonstrated among political affiliations, personality characteristics, and attitudes toward persons with disabilities.

The 16 Personality Factor Questionnaire, when correlated with the SAS-H, showed that people who exhibit the following personality characteristics have a more favorable attitude toward persons with disabilities: warmth, emotional stability, liveliness, rule-consciousness, social boldness, openness to change, and extraversion. People with more negative attitudes toward persons with disabilities exhibit the following characteristics: anxiety, tension, and self-reliance.

Recommendations for future research include exploring the effects and implications of the gender of people who hire persons with disabilities, examining effects of age and views toward persons with disabilities, reviewing the effects of school-wide curriculum pertaining to persons with disabilities, and analyzing the attitudes and personality traits of politicians who have influence to pass and create laws.

## CHAPTER 1 INTRODUCTION

Persons with disabilities face many forms of discrimination in our society.

Discrimination is reflected in the negative attitudes and stereotypes held by the general public. These attitudes and the key players in a person's life are often seen as the primary components of the handicapping or "paternalistic" environment (Hahn, 1982; Yucker, 1988). Research shows that attitudes of siblings, medical personnel, counselors, co-workers, employers, and others can have an effect on a person's occupational and social success (Antonak & Livneh, 1995). Negative attitudes often create obstacles for persons with disabilities and impede their personal, psychological, and vocational development. Despite advances in public policy and legislation, significant barriers still exist. Both public policy and legislative initiatives have focused on accommodating physical needs but have ignored an important element: attitudes of society. Disability rights advocates stress the importance of improving the general public's attitudes toward disability and people with disabilities to eliminate environmental and social system barriers.

### Background of Study

Historically, four different conceptions of disability have emerged (Arokiasamy, Rubin, & Roessler, 1987). The first explanation, going back to ancient Mediterranean cultures, was one that attributed the cause of disability to supernatural forces (i.e., demonic possession or divine punishment). Next to emerge, during the time of Hippocrates (about 400 B.C.), was the view that attributed disability to medical causes.

This view was later altered by Asclepiades of Prussia during the second century B.C. He believed that disabilities had natural causes and should be treated by psychosocial interventions. The proposition that having a disability places one into a minority group that is handicapped by societally imposed barriers emerged in the mid-twentieth century. All four of these causes, including the most primitive one, still exist in today's culture (Arokiasamy et al., 1987).

Hershenson (1983), in reviewing history, sees the four causes of disability as a sequence in which Western culture tries to deal with events. When explanations of faith (one must accept events as the will of supernatural powers) prove no longer valid, they are followed by explanations based on logic (one can understand events because they are the result of systematic natural causes that can be determined). These in turn, are followed by explanations built on the theory of power (one can control events by knowing what created them). It is unlikely that many people in our society hold a conception of disability based on just one of these principles (Hershenson, 1992). It is the balance and intervention of the components based on faith, logic, and power that will affect a person's conception of disability. Factors such as type of onset of disability (genetic, congenital) or whether a person with the disability is responsible for his condition (unhealthy lifestyle) are also determinants of conception of disability.

The number of persons with disabilities in the United States has risen to almost 50 million. Nearly half of these people are impaired in their ability to participate in routine activities of daily living such as dressing, cooking, and childcare (Matthews, 2000). An estimated 20.3 million families or 29.2% of all 69.6 million families in the United States have at least one member with a disability (Adams & Benson, 1991, as cited in Matthews, 2000). There are many differences between the population of persons

with disabilities. However, recent improvements in medical care and technological advancements in adaptive and assistive aids are helping people with disabilities live more satisfying and fulfilling lives (Matthews, 2000).

The National Organization on Disability (NOD) in 1986, and again in 1994, commissioned Louis Harris and Associates to conduct polls on the attitudes and experiences of Americans with disabilities. These polls showed that a large majority of working-age people with disabilities wanted to work but were not working. In the Harris surveys, the number of working age people 16 to 64 who wanted to work increased from 66% to 79% between 1986 and 1994. In the age group between 16 and 44 years, 84% said they wanted to work in both polls. Among those who were unable to work due to their disability, two thirds said they would like to have a job.

People with disabilities often encounter barriers to entry in the workforce including lack of accommodations, education, job skills, and difficulty obtaining appropriate training (Matthews, 2000). These factors contribute to low income levels, low labor force participation rates, and high levels of reliance on public benefits.

Work disability, the condition of being unable to work, or being limited by the amount and kind of work available, can be caused by a variety of factors. There are many factors that contribute to the high numbers of people with disabilities who are unemployed (Rubin & Roessler, 2001). One factor is the functional limitation itself; another is the attitude others have about the employability of individuals with such limitations. Demographics, income, and opportunity are other factors frequently encountered by the disabled.

This study is an extension of a 1990 study by McQuilken, Freitag, and Harris that examined the attitudes of college students toward handicapped persons. The current

study expanded the earlier findings by sampling community college rather than university undergraduates and by including ethnicity and type of religion as identified on the questionnaire. A statistical difference between the two studies is that the earlier study calculated correlations between 16 PF traits and the demographic variables, which were categorical. The current study did not include these calculations since it is typically not valid to consider correlations between variables that are not quantitative (Moore & McCabe, 1993).

### Purpose of the Study

The purpose of this study was to examine the attitudes, as measured by the Situational Attitude Scale-Handicapped (SAS-H), of community college students toward persons with disabilities and to see if certain personality characteristics, as measured by the 16 Personality Factor Questionnaire (16PF), made a person more or less likely to have a favorable or unfavorable attitude toward a person with a disability. In addition to the SAS-H and the 16PF, the participants completed a demographic survey, which included questions regarding gender, religion, minority status, political affiliations, and type of community in which the participant was raised. The results have important implications for student personnel administrators, college students, and employers because these people have direct contact with persons with disabilities.

### Research Questions

Specifically, this study sought to answer the following questions:

1. Is there a difference in the attitudes between men and women toward persons with disabilities?
2. Is there a difference in the attitudes between minorities and non-minorities toward persons with disabilities?

3. Does political affiliation make any difference in the attitudes toward persons with disabilities?
4. Is there a difference in the attitudes of Christians and non-Christians toward persons with disabilities?
5. Does the type of community in which the participant was raised make a difference in the attitudes toward persons with disabilities?
6. Are there certain personality traits that are associated with a positive or negative attitude towards persons with disabilities?

### Significance of the Study

The Americans with Disabilities Act of 1990 (ADA), P.L. 101-336, was groundbreaking legislation for people with disabilities. The ADA gives civil rights protection to people with disabilities, similar to those provided to individuals based on color, gender, race, national origin, age, and religion (Satcher & Dooley-Dickey, 1992). It guarantees equal opportunity for individuals with disabilities in public accommodations, employment, transportation, state and local government services, and telecommunications. Employment provisions apply to private employers, state and local governments, employment agencies, and labor unions (Satcher & Dooley-Dickey, 1992).

The United States Government, by enacting the Americans with Disabilities Act, has extended the civil rights of persons with disabilities in the workplace, and much attention has been given to accommodating physical needs. As people with disabilities seek to exercise their new opportunities and employers move to comply with the new law, a problem beyond physical accommodation may be present--attitudes in the workplace (Clarke & Crewe, 2000).

Stevens (1986) reports that people with disabilities are equal to people without disabilities in terms of productivity, turnover rates, absenteeism, and accident rates. In some cases, employees with disabilities have been shown to be more productive, have

better attitudes, lower turnover and accident rates than their nondisabled counterparts (Lester & Caudill, 1987)

Concerns on the part of employers about hiring people with disabilities are still an issue despite positive research findings. One area of concern has been cost of providing reasonable accommodations (i.e., making facilities accessible, adapting the work schedule). Noel (1990), citing data from the Job Accommodation Network, found that 51% of all companies using assistive devices reported no cost for accommodating the disabled and 30% reported a cost of less than \$500. Reasonable accommodation reflects the bias toward eliminating the physical barriers of employment. Havranek (1991) suggests the major problem preventing employment of persons with disabilities is negative attitudes on the part of the employers.

People without disabilities, including employers, may have low expectations of people with disabilities and do not expect to find them functioning in a capable manner. Feelings such as depression and anxiety and behaviors such as devaluing, pity, avoidance and exclusion on the part of nondisabled people when they encounter people with disabilities are also factors contributing negative attitudes (Evans, 1976). McFarlin, Song and Sonntag (1991) examined hiring practices and attitudes toward people with disabilities in a sample consisting of 189 executives of Fortune 500 companies. Their study showed that firms with less exposure to persons with disabilities had more negative attitudes. Even though these companies exhibited negative attitudes, 78% of them believed that more should be done within their own company and in others to integrate people with disabilities in the workforce (Berry & Meyer, 1995). Employers need to assess potential roadblocks and provide appropriate interventions to promote positive outcomes as they take action to comply with the ADA.

This study collected data that are helpful to present and future employers by examining the views of community college students toward persons with disabilities. Studying personality trait patterns and demographic variables provided information that can help to plan strategies and interventions that will create a positive attitude toward hiring people with disabilities.

### Limitations of the Study

The sample of students in this study was not a randomly selected sample. Rather, it was a convenience sample (Moore & McCabe, 1993) since it was conducted on a particular group of students taking the same class at one mid-size central Florida community college. For the purposes of this study, this community college will be referred to as “Winner Community College.” While this does not invalidate the results, it raises the question of how representative this sample is of the population in question.

Another limitation of this study involved the correlation analysis relating personality traits to attitudes toward persons with disabilities. Just because a particular personality factor is correlated with a certain attitude does not allow us to conclude that the personality trait causes the attitude. Without further controlled experiments, the researcher cannot eliminate the possibility of confounding variables beyond the personality factor in question affecting attitudes. We would only be able to conclude that the personality trait is associated with the attitude toward a person with a disability (Moore & McCabe, 1989).

A third possible limitation can include the honesty of students when identifying their demographic data (e.g., religious beliefs, political affiliations). Since the demographic data were self-reported by the students, rather than being objectively measured, the possibility exists that they were untruthful or did not read or understand



the questions. The responses on the questionnaire were reported anonymously.

Therefore, it is unlikely that self-reporting created a serious problem with respect to truthfulness.

### Definition of Terms

For the purposes of this study, the following definitions apply:

Disability refers to a physical or mental impairment that substantially limits one or more major life activities, is a record of such impairment, or is regarded as being such impairment (Matthews, 2000).

Discrimination is the result of unfair or unequal treatment of individuals or groups on the basis of prejudice and stereotypes (Nagler, 1993).

Stereotype defines the specific content of the prejudice directed toward specific groups (Nagler, 1993).

Prejudice is any oversimplified and overgeneralized belief about the characteristics of a group or a category of people (Nagler, 1993).

Stigma refers to any physical or behavioral characteristic that in some way discredits individuals or makes them the victim of someone's preconceived negative expectations (Schneider & Anderson, 1980).

Attitude comprises the interaction between personal feelings (affect) and beliefs (cognitions ) that lead to evaluative judgments and behaviors toward a particular group of people (Mackie & Hamilton, 1993).

### Summary

This study was intended to add knowledge about the relationship between the selected variables and the impact they have on attitudes toward persons with disabilities.

This chapter provided an introduction to the research problem. After presenting a brief

historical overview of views about disability, this chapter identified the purpose of the study, the hypotheses to be tested, discussed the significance of the study, and the limitations of the study. Terms used in this study were also defined.

Chapter 2 presents a review of related literature. It provides information on the origin of attitudes toward persons with disabilities and the present status of attitudes in society. Chapter 3 describes the research methodology of the study. The population, questionnaires used, and statistical analysis of the data in the study are discussed. Chapter 4 describes the results of the study as outlined in Chapter 3. Chapter 5 offers conclusions and discussion of the results of the study, implications for practice, and recommendations for future studies.

## CHAPTER 2 LITERATURE REVIEW

This chapter examines the origin of attitudes toward persons with disabilities, the role of mass media in perpetuating negative attitudes, and demographic variables such as gender, personality traits, minority status, religion and their effects on persons with disabilities. In addition, this chapter will also review literature pertaining to attitudes of college students, by specific majors, and the impact of these attitudes as they relate to the employability of people with disabilities.

### Origin of Attitudes

The acceptance and integration of persons with disabilities continue to be limited by the negative attitudes, misconceptions, and prejudicial stereotypes of employers, coworkers, educators, peers, health care professionals, neighbors, and family members. Several theorists have categorized the factors that influence the formation of attitudes toward persons with disabilities (Thorn, Hershenson, & Romney, 1994). These factors have one aspect in common: they all attempt to explain the possible origins, determinants, roots or sources of negative attitudes. They provide the answer to a puzzling question, “Why are attitudes toward persons with physical, emotional, mental and social disabilities so negative?”

### Sociocultural-Psychological Theory

This theory conceives the origins of negative attitudes as ranging from those associated with pervasive socially and culturally valued norms and to those triggered by

unique psychodynamic and developmental experiences. Sociocultural factors place an emphasis on physique and beauty, health, athletic ability, achievements, productiveness, and employment. Disability in this context connotes a lower status, social deviance, minority membership, and marginality (Yuker, 1988). Psychodynamic factors address sources on a more personal level and place an emphasis on the requirement of mourning. They include an expectation that a person with a disability should grieve for the loss of a body function or part, an ambivalence between desire to visually explore and fear of violating a social norm against staring, an association of responsibility with etiology, a feeling of guilt by association mechanism, a feeling of guilt for being without a disability, a viewing of disability as punishment for sin, and a feeling that a person with a disability is evil and dangerous.

Siller (1967) examined a number of factors that he felt were responsible for creating and maintaining negatively held attitudes toward persons with disabilities. Siller's research was a construct labeled "strain in social interaction." The three components underlying strain in social interaction for people without disabilities are their lack of knowledge concerning how to behave during interpersonal communication, how people with disabilities perceive themselves and their disabilities, and the acceptability of any questions or expressed curiosities about the disability (Evans, 1976). Siller (1969) arrived at seven major attitudinal components generalized across disabling conditions. The seven attitude factors were titled and described by Siller (1976) as

1. Interaction strain—uneasiness in the presence of disabled persons and uncertainty as how to deal with them.
2. Rejection of intimacy—rejection of close, familial relationships with the disabled.
3. Generalized rejection—a pervasive negative and derogatory approach to disabled persons with consequent advocacy of segregation.

4. Authoritarian virtuousness—ostensibly a “prodisabled “ orientation, this factor is really rooted in an authoritarian context.
5. Inferred emotional consequences—intense hostile references to the character and emotions of the disabled person.
6. Distressed identification—personalized hypersensitivity to disabled persons who serve as activators of anxiety about one’s own vulnerability to disability.
7. Imputed functional limitations—devaluation of the capacities of a disabled person in coping with his environment.

A study of college students and their reactions toward dating peers with visual impairments by Fichten, Goodick, Amsel and McKenzie (1991) indicated that young adults without visual impairments were more likely to date nondisabled individuals than partially sighted or blind peers and that sighted people think more negatively and feel less comfortable in dating contexts that involve someone with a visual impairment. Thoughts about how friends might react to dating someone with a visual impairment were particularly negative.

#### Affective-Cognitive Theory

This theory explained by Yuker (1988) explores the roots of negative attitudes by emotional reactions such as anxiety and guilt and to those characterized by intellectual determinants such as poor self-insight, ambiguity intolerance, and cognitive dissonance. Societal responses toward persons with disabilities has in part been determined by the perceived cause. How society perceives the cause of disability has a greater influence than the actual cause of disability. Perceived causes can be influenced by advances in medicine, natural causes, and religious beliefs.

Arokiasamy, Rubin, and Roessler (1987) suggested five major determinants of societal responses to attitudes toward persons with disabilities: perceived cause of disability, perceived responsibility of disability, perceived threat of disability, prevailing

economic conditions within society, and the prevailing sociocultural milieu. The current sociocultural environment is the broadest and most basic of the five determinants of societal responses toward persons with disabilities. The other four determinants are part of the sociocultural matrix, knowledge of which is essential to any attempt to explain or predict societal treatment of persons with disabilities. Societies have their own characteristic social, cultural, moral, legal, political, and economic values that shape the attitudes and behaviors of their members.

From an affective perspective, the sources of negative attitudes include references to aesthetic aversion at the sight of certain disabilities such as body deformities or mental and emotional conditions affecting one's behavior, mobility, or speech. Other affective sources cited include a threat to one's intact body image when in the presence of a person with a disability due to the fear that a similar impairment could happen to oneself, death anxiety, and fear of mutilation. Cognitive sources can be categorized as a list of worries, concerns, misbeliefs, and misconceptions regarding the nature of the impairments and disabilities involved. Cognitive sources can be attributed to unfamiliarity with persons with disabilities, fear of contamination/inheritance, and attribution of personal accountability for disability. This assumption helps explain the widespread negative attitudes often associated with social and behavioral disabilities (alcohol abuse, drug abuse). Contamination or inheritance provokes avoidance of certain types of disabilities, including AIDS and cancer.

Society often believes that suffering and punishment, like joy and rewards, are deserved (Asch, 1952; Heider, 1958). Suffering is often seen as a result of some type of wrongdoing or of not "paying the price." In the case of disability, society often assumes that someone should be blamed for disability and perceives the disability as being caused

by some type of wrongdoing by the person with a disability (Wright, 1983). Even when a disability has a defined cause, some people find it difficult to shake the notion that the condition was somehow deserved. Sometimes, people with disabilities may buy into this belief and feel they are somehow responsible for their disability. In the past, responsibility for the disability has been attributed to the person with the disability, but recent advances in medicine have led to an emphasis on external agents such as germs and viruses. Safilios-Rothschild (1970) examined the role of personal responsibility as one of the important variables that determine attitudes toward people with physical impairments. Safilios-Rothschild states that when people are perceived as not being responsible for their disability, the attitude is more positive. According to Freidson (1965) when an individual is perceived as being responsible for their disability, some form of punishment is likely to be involved in the way others respond to that person.

Perceived threat is a powerful motivating force among human beings that has impacted attitudes toward persons with disabilities (Arokiasamy, Rubin, & Rossler, 1987). In the past, people with disabilities have been seen as a threat in two areas: threat to personal safety and threat to economic well being. The current emphasis on deinstitutionalization, mainstreaming and the development of many community based programs is an illustration of a perceived threat by many people in society. People in society feel that facilities such as halfway houses for drug abusers, alcoholics, and discharged mental patients are threats to their personal safety, and they fear their children will pick up the bad habits that are associated with these people. This may be the reason why establishing group homes in residential areas is so difficult.

Prevailing economic conditions also affect the attitudes toward persons with disabilities. Resources are limited, while needs and wants are unlimited. Society has to

make hard decisions about which needs and wants satisfy demands and to what extent. Therefore, the economic conditions at a particular time can impact the responses of society toward people with disabilities. The state of the economy, whether good or bad, determines the amount of resources available to meet the needs of people with disabilities (Arokiasamy, Rubin, & Rossler, 1987). The level of economic development of a society determines which of its needs and wants a society can afford to meet. Third world countries who have problems meeting basic needs such as food, clothing and shelter often have few resources to meet the needs of their disabled population. In addition, the economic philosophy of a society also determines how the needs of persons with disabilities will be met (Rubin et al., 1987).

Sociocultural trends have negatively affected the treatment of persons with disabilities throughout time. With the development of Social Darwinism (19th century), many people supported the idea of survival of the fittest and opposed governmental support of welfare or rehabilitation efforts. Society proposed that people with disabilities should be allowed to perish, in keeping with the natural selection process that allowed only the strong and worthy to survive. At the turn of the 20th century, acquiring a disability was a sure ticket to poverty (Rubin & Roessler, 2001). The increased demand for industrial products necessary to maintain the World War II effort coupled with a dwindling civilian workforce enabled people with disabilities to enter the workforce. The disabled demonstrated to thousands of employers that the presence of a disability did not hinder a person's performance if the person was placed in an appropriate job. The presence of the disabled in the workforce was seen as a national necessity. These attitudes led to federal legislation that extended services to persons with mental retardation and mental illness and expanded types of physical restoration services that could be provided



for persons with physical impairments. As a result of these wartime contributions of persons with disabilities, the attitude toward persons with disabilities improved. The effectiveness of vocational rehabilitation programs led to laws to accommodate the disabled and increased funding to assist persons with disabilities.

Wright (1960) examined the role of coping as a variable that is used to determine attitudes toward persons with disabilities. When people are perceived as coping with their disability, a more positive evaluation results. Coping behavior insinuates that a person is containing the disability and is making the most of what one has, which evokes a positive attitude toward that person. In a study conducted by Shurka, Siller and Dvorchak (1982) college students were tested to find out the role of responsibility and coping and the impact on attitudes toward persons with disabilities. Results showed that people with disabilities who were seen as coping and not responsible for their disabilities were seen more favorably than any other group.

A 1997 study of attitudes toward children with severe burns showed that counseling students reported they were uncomfortable working with children with severe burns, had little confidence they could help, believed they could not establish a working relationship, would not be eager to work with this population, preferred to work with other groups of clients, and were not optimistic about these children's futures (Holaday & Wolfson, 1997). These participants were afraid they would be stared at and embarrassed in the company of these children. Livneh (1991) referred to this belief as guilt by association in which a person without a disability fears that this association with a child with a severe burn may be interpreted by others as implying some psychological maladjustment on his or her own part.

### Past Experience-Present Situation Theory

This theory attributes attitudes to early life influences and experiences with causes believed to be anchored in current situational experiences. These early life experiences are associated by parents' transmittal of cultural, social, and moral beliefs and specific negative personal experiences relating to disease, illness, and disability. The opposing belief to the early influences theory toward negative attitudes is that in which situational experiences in the present, with an emphasis on current events, affect the attitudes toward persons with disabilities. Some of these attitudinal determinants include fear of social ostracism by other nondisabled individuals and the ambivalence triggered when sympathy and caring are invoked at the same time with aversion and repulsion (Yuker, 1988).

Early life experiences that can cause negative attitudes toward persons with disabilities are often associated with parental emphasis on the importance of health and normality. Infringement of health rules, which is equated with illness, sickness, and long term disability, can cause anxiety concerning the origin of a variety of illnesses and impairments in children. The view of suffering and disability as a punishment for early personal and family mistakes fall into this category (Yuker, 1988).

The culture in which we are raised strongly affects our attitudes, beliefs, and values, which in turn affects our behavior (Slonim, 1991). The first few years of life are crucial to the development of values, attitudes, and control of other environmental factors that shape personality. Kluckhohn (1961) notes that the child develops an "attitude toward life; confidence, resignation, optimism, pessimism" (p. 206). These attitudes are determined by the kind of care received and amount of care given (Slonim, 1991). Linton (as cited in Slonim, 1991) believes that "cultural behavior influences the developing personality in two ways: (a) behavior toward the child and (b) behavior by the child" (p. 56).

The crucial element in a child's value-attitude system is a close and continuous contact with parents and siblings and a personality formation that integrates these experiences (Slonim, 1991). Culture was the dominant factor in establishing the basic personality type for any society. Childhood is a period of extreme malleability, when developing individuals are highly sensitive to accepted and expected customs, as well as the rationale and consequences of those customs. Personality development is also influenced and affected by the superstitions and folk beliefs of a culture. These beliefs are linked to cultural values, health and education practices, food patterns, religious practices, and interpersonal relations. All of these beliefs influence our attitudes toward courtship, marriage, childbearing, death, illness, and disability.

A study of attitudes of graduate students in rehabilitation counseling in 1990 found self-esteem to be positively related to attitudes toward persons with disabilities (Garske & Thomas, 1990). This is consistent with Yuker (1988), who found that people with positive and secure self-concepts tend to show positive and accepting attitudes toward persons with disabilities. Rogers (1951) suggests that an individual's self-concept, values, feelings, and judgment of self-worth guide his or her own behavior.

#### Internally Originated-Externally Originated Theory

This theory is associated with the demographic or personality variables of the outside, nondisabled observer that are implicated in negative attitudes toward persons with disabilities (Yuker, 1988). Demographic characteristics such as gender, age, socioeconomic status, and educational level are considered in attitudinal formation. Personality characteristics that are associated with negative attitudes include low self-esteem, anxiety, rigidity, and aggressiveness. Other factors are misconceptions by the nondisabled of people with disabilities as having negative behaviors such as being

overdependent, insecure, and seeking to gain financial incentives in order to avoid gainful employment.

Another group of externally originated sources are related to type of disability, level of severity, degree of visibility, and degree of cosmetic involvement. The type of body part or function involved with the disability also carries personal and social implications and affects the perceptions of the person with the disability.

All and Fried (1996) studied the demographic variables that influenced anxiety concerning HIV/AIDS in rehabilitation workers. Results showed that the only factors in this study that related to reduced anxiety were age, previous contact with persons with HIV/AIDS, and previous contact with persons who were homosexual. Anxiety about AIDS is not limited to the general public. Human service workers are worried about their vulnerability to the disease, despite well-designed studies that demonstrate the relatively low risk of patient/human service worker exposure when universal precautions and risk reduction behaviors are used. Samuel and Boyle (1989) addressed the issue of attitudes of social workers and found that having more information created more positive attitudes. Fear about AIDS and anti-gay attitudes correlated to lack of knowledge.

Levy, Jessop, Rimmerman, Francis and Levy (1993) completed a study of the determinants of attitudes of New York State employers toward the employment of persons with severe handicaps. Their study examined the responses of 418 companies and found that college graduates and graduate school attendees are more positive in their attitudes than high school graduates. In addition, this study showed that companies who have hired employees with disabilities in the past have had more positive attitudes than those companies who had not hired such employees. Previous experience with persons with

disabilities and positive prior employment experiences with disabled workers also were a factor in positive attitudes.

People with disabilities have frequently been seen as a threat to society. Today there is an awareness that society, too, poses a serious threat to people with disabilities through negative attitudes expressed through indifference, condescension, segregation, stigmatization, and discrimination. Hahn (1985) stated:

The recognition that various kinds of disabilities transmit physical or behavioral cues that may evoke similar reactions from others . . . could be an important unifying theme in the study of this subject. . . . Although these problems have different origins, perhaps more significant are similarities or discrepancies in the responses that they elicit from other people. By determining the extent to which various type of disabilities become known in social interactions and by examining variations in reactions they produce, important progress might be made in unraveling the distinctive effects of physical, mental and other kinds of disabilities. (p. 308)

#### Role of Mass Media

Public awareness of people with disabilities has increased over the past few decades. Modern technology has provided the means to overcome environmental barriers, allowing people with disabilities to become more visible in everyday life. Unfortunately, invisible barriers still remain. The task of changing and challenging the nondisabled population's attitudes, feelings, thoughts, and values require special planning. Television and print media provide easy access, but in some circumstances do more harm than good.

The uses of "language (i.e., terminology) and social discussion construct the experience and understanding of disability in the United States" (Wilson & Wilson, 2001, p. 185). The mutual relationship of language and disability have been seen in negative connotations of such terms as "cripple," "retard," "spastic," and "handicapped" (Philips, 1990). Charitable organizations have been constructing a textualization of disability that has long been influential in the American public. Drake (1996) stated, "the representation

of difference and separation in charity advertising is one of the most prominent places where such stereotypes are presented and perpetuated” (p. 148).

In the past, charities have actively exploited fear of disability and pity for its victims in fund-raising. The fund-raising of the United Way has contained many examples of representations of disability that depend on familiar themes of pity and fear, quasi-religious themes that have historically been part of charity fund-raising (Lynch & Thomas, 1994). United Way has focused their ads on children instead of adults, which effectively erases the complex experience of disabled adults whose interests in independence and autonomy are seldom represented. In addition, this established a binary distinction between able-bodied and the disabled, separating and distancing the disabled from the abled. In an advertisement printed in 1949, a photo shows an adult man being led by a dog and the caption reads, “A Leader Dog helps guide a blind person to a new world of independence. It gives the sightless an opportunity to work, play, and be a normal human being” (Wilson & Wilson, 2001, p. 87). The agency, by using this as a marketing tool, shows productivity as a part of balanced life; but the change agent in the achievement of such an independent life with its balance of work and play is not the adult man, it is the leader dog. People would assume that without the service provided by this charity, the man would live a life of dependence and perhaps despair over his inability to be normal because of his disability (Wilson & Wilson, 2001).

The representation of disability via the figure of the child still remains as an enduring practice in fundraising today. Some textual practices have grown more subtle over time; shock photos such as crippled children in their underwear no longer appear. The language establishing groups of excluded categories continues in an example from a 1950 United Way pamphlet that highlights, “the aged and handicapped, the diseased, the

destitute, the lonely and the many others in need.” However, the 1995 pamphlet states we can provide “the power to lift those who have fallen, to comfort those who are troubled and to guide those who are lost” (Wilson & Wilson, 2001, p. 186). The guide contains short comments from “happy parents of Gabrielle,” and it adds, “Your contribution today will give families like these a hope for a brighter tomorrow” (p. 187). The focus is on families with special-needs children rather than children pictured in the ads. Families are now the source of our compassion and generous donations. This type of fund-raising continues to effectively erase the complex experience of disability by adults.

Misconceptions by the public arose out of the fund-raising strategies by these organizations. However, a far more blatant and undignified means of exploiting children was coming: the telethon (Lynch & Thomas, 1994). Real children paraded on stage as objects of pity, while the amount of money pledged flashed on the television screen. The telethon was misleading when it implied that this money would be used to cure these children and children like them. A 1993 article reported that the money collected from the Jerry Lewis Muscular Dystrophy Association (MDA) Telethon has always gone to the cost of the telethon itself (Fleischer & Zames, 2001). Jerry’s kids are people in wheelchairs, on television, raising money to find a way to prevent others with muscular dystrophy from coming into the world (Lynch & Thomas, 1994).

Public images put forth by poster children and telethons negated the reality of adults with disabilities (Fleischer & Zames, 2001). Many children with disabilities were unaware about the existence of adults with disabilities because there were no productive adults with disabilities as role models. Some children thought that they would be cured by adulthood or they would face death before reaching adulthood. Adults with disabilities took a stand and asked why they were being eliminated from public relations strategies.

Questions like, “How could adults with disabilities participate in society if they were invisible?” or “Was the money acquired by the means of a telethon worth the damaging misconceptions?” These overlooked adults concluded that the telethons contribute to what is, in essence, a movement diminishing “society’s role in handicapping disabled people” (Safilos-Rothschild, 1970, p. 15).

In looking at images of people with disabilities in television and film, one encounters two facts. First, there are hundreds of characters with all sorts of disabilities (i.e., disabled war veterans, criminals) from central characters of television series, temporarily disabled for one episode (i.e., disabled victims of villains), to animated characters like stuttering Porky Pig, speech-impaired Elmer Fudd, and mentally challenged Dopey (Fleischer & Zames, 2001). Second is the fact that we overlook the prevalence of disability and the frequent presence of disabled characters. The animated characters are added for humorous effect with the disability being the central aspect of the humor.

Disability has often been used to exaggerate a specific point or theme not only in popular entertainment but literature as well (Albrecht, Seelman, & Bury, 2001). The most popular is associating disability with malevolence. This is where deformity of the body symbolizes deformity of the soul. People with physical disabilities are made to look like the emblems of evil. As an example, two doctors, with disabilities resulting from foul-ups in their devious experiments, are crippled as a consequence of their evil. Portraying the disabled as villainous characters reflects and reinforces three common prejudices against people with disabilities: disability is punishment for evil, disabled people are embittered by their “fate,” disabled people resent the nondisabled and would, if they could, destroy them. This results in a separation from the community. This exclusion is not presented to



protect society from danger, from the monstrous disabled character. It is portrayed as the inevitable consequence of a serious physical or mental impairment that prevents normal functioning, normal relationships, and normal productivity. These dramas present death as the only logical and humane conclusion for people with disabilities. These authors state, "Disability makes membership in the community and meaningful life impossible, and death is preferable. . . . Better dead than disabled" (p. 520).

Another image of the disabled in television has been the maladjusted person with a disability (Albrecht, Seelman, & Bury, 2001). Characters with physical or sensory disabilities, rather than mental impairments, are the main focus. In this scenario, the central characters with disabilities are bitter and self-pitying because they have not adjusted to their disability and have never accepted themselves as they are. They, in turn, treat their family and friends with anger and resentment. At first, people without disabilities feel sorry for them, but eventually they realize that in order to help the individual with the disability they must get "tough" with them. This is where the person without the disability confronts the person with a disability and gives them an emotional slap in the face and tells them to stop feeling sorry for themselves. The person with the disability then quits complaining and becomes a well-adjusted adult. Portrayals like these suggest that disability is a problem of psychological self-acceptance, of emotional adjustment. Social prejudice hardly intrudes. Stories like these put the responsibility of all problems on the individual with the disability. If a person with a disability is socially isolated, it is not because the disability has cut them off from the community or because society has rejected them but because they have refused to accept their disability and have chosen isolation.

Both laboratory and field research are needed to evaluate the impact of different types of media portrayals of interactions between people with and without disabilities on able-bodied individuals' thoughts, feelings, attitudes, and social behavior in the everyday world (Fichten, Robillard, Tagalakakis, & Amsel, 1991).

### Demographic Variables and Their Impact on Attitudes

Examining the attitudes of professionals, friends, and family members and the relevance of these attitudes to the course and outcome of rehabilitation can increase the likelihood of success for people with disabilities as full participants in employment, government, and public accommodations (Hernandez, Keys, Balcazer, & Drum, 1998). Assessment of specific demographic variables and their impact on attitudes can help focus information dissemination and awareness training on disability rights. Data collected can be helpful in designing intervention programs and evaluating the effectiveness of Americans with Disabilities Act educational campaigns and training.

### Gender and Attitudes

Stovall and Sedlacek (1983) studied the differences between male and female college students and their attitudes toward students with physical disabilities. They found that women, regardless of whether the student with the disability was blind or in a wheelchair, had more positive attitudes than men. McQuilken, Freitag, and Harris (1990) studied attitudes of college students toward persons with disabilities and found that women have slightly more favorable attitudes toward persons with disabilities than do men. Satcher and Dooley-Dickey (1992), in their study of attitudes of human resource management students toward persons with disabilities, found that white women seemed to have the most positive attitudes when compared with white and black men. However, black women had the least accepting attitude toward persons with disabilities.

Siegfried and Toner (1981) investigated the attitudes of college students toward coworkers and supervisors with disabilities. Undergraduate students read a description of a person described as either a potential coworker or supervisor, male or female. One scenario with a person who did not have a disability and the second scenario was with a person who used a wheelchair since childhood. Women were found to be more lenient than males. Women were found to be better communicators, to have better dealings with the public, and were seen as more approachable with a job-related problem and liking to work with people of all types.

Berry and Meyer (1995) examined the impact of attitudes and situation on employing people with disabilities. Participants were asked to respond to situations with varying levels of intimacy. Women were found to have more positive attitudes than men. In addition, younger respondents were seen to be more anxious and hostile toward people with disabilities than were older respondents.

Adelson, Carey, and Croke (1972) found differences between the sexes in a study of children's attitudes toward people with physical disabilities, with females being more accepting than males. Children's attitudes became more favorable through contact with the disabled, but the differences in attitudes seemed to lessen with age.

Levy, Jessop, Rimmerman, Francis, and Levy (1993), in their study of determinants of New York State employers toward the employment of persons with severe handicaps, found that women were more inclined than men to hire persons with disabilities. Women believed that people with severe handicaps, trained for competitive employment with appropriate support services, could be dependable workers in the community. Productivity rates of disabled workers could be as high as workers without

disabilities. Appropriate social skills and exposure to people with severe handicaps promoted positive attitudes on the part of workers without disabilities.

Several other studies have indicated that women have more favorable attitudes toward persons with disabilities. Tringo (1970) found that females were more willing than males to interact with persons with disabilities. Harasymiw, Horne, and Lewis (1976) found that females were more willing than males to enter into close social relationships with persons with disabilities. Aloia, Knutson, Minner, and Von Seggern (1980) reported that female physical education teachers were more willing than their male counterparts to integrate students with disabilities into their classes. Roush and Klockers (1988), studying the validity and reliability of Siller's General Factor Disability Scale and Antonak's Scale of Attitudes Toward Disabled Persons, found that women demonstrated attitudes higher than males measured on such items as interaction strain, optimism-human rights, and inferred emotional consequences.

#### Personality Traits and Attitudes

Livneh (1988) identified a list of personality variables presumably influencing attitudes toward persons with disabilities. Frequently mentioned personality traits associated with negative attitudes include ethnocentrism, authoritarianism, dogmatism, rigidity, narcissism, aggressiveness, lack of self-insight, low self-esteem or poor self-concept, ego weakness, lack of body or self-satisfaction, anxiety, ambiguity intolerance, interpersonal alienation, and external locus of control (Cloerkes, 1981; Schneider & Anderson, 1980).

McQuilken, Freitag, and Harris (1990), when studying college students, found a cluster of personality traits that have negative implications toward persons with disabilities. They include being apprehensive, controlled, leaning toward pity, preferring

books and quiet interests to people and noise, and displaying phobias and anxieties. In addition, they select few peers as friends and have high standards of group conformity to the rules of society. This type of individual would be concerned about his or her self-concept, self-image, and regard for etiquette and social reputation. These individuals are dissatisfied with the world situation, their families, are easily annoyed, and feel unable to cope with life. This type of person looks for routine in life and gets easily upset when things do not go according to plans.

Berry and Meyer (1995) studied 176 employed adults from a variety of work settings and examined the impact of their attitudes and situations on employing people with disabilities. Participants with more negative attitudes toward persons with disabilities reported more anxiety, depression, and hostility than those with more positive attitudes. Subjects with more negative attitudes reported anticipating more change from their usual behavior, more avoidance of the situation, and a greater desire to escape from the situation when a person with a disability was involved. Negative responses about potential contact with a coworker with a disability were found to be related to one's attitude toward persons with disabilities in general and to the potential discomfort one might face in a particular situation.

Garske and Thomas (1990) examined the attitudes of beginning graduate students in rehabilitation counseling toward persons with disabilities and the relationship of their attitudes to self-esteem. This study found that people with positive and secure self-concepts tend to show positive and accepting attitudes toward persons with disabilities. Eisler (cited in Yuker, Block, & Young, 1966), found that a positive self-concept was related to a more accepting attitude toward persons with disabilities.

Hahn (1993), when examining components of attitudes toward disability, found that aesthetic and existential anxiety have a profound impact on attitudes toward persons with disabilities. Aesthetic anxiety refers to the fears engendered by an individual whose appearance is different from the usual human form or includes physical traits regarded as unappealing. Existential anxiety refers to the threat of potential loss of functional capabilities by the nondisabled. Hahn believed, "The perceived unattractiveness of a disability is a source of anxiety that leads to negative attitudes toward persons with disabilities" (p. 42).

English (1971) explored attitudes toward people with visual impairments and found that persons with more positive attitudes toward people with disabilities tended to be less aggressive, have higher self-concepts, exhibit greater tolerance for ambiguity, have higher needs for social approval, and exhibit lower levels of anxiety. English also pointed out that people who exhibit negative attitudes tend to reject any group they consider significantly different from their own, particularly groups that are ethnically, racially, or religiously different.

Marinelli and Kelz (1973) conducted a study using two types of anxiety, trait (always anxious) and state (temporarily made anxious), as independent variables affecting the dependent variable, attitudes toward cosmetic disfigurement. Results showed that significant rejection of the stigmatized for both types of anxiety.

MacDonald and Hall (1969) studied locus of control as a personality construct often considered when determining attitudes toward persons with disabilities. The study found that persons with a more external locus of control viewed physical disabilities as significantly more threatening than other types of disabilities. Those with internal locus of

control viewed emotional disabilities as more debilitating and threatening. Two opposing aspects of personality both held negative attitudes toward persons with disabilities.

### Minority Status and Attitude

Ethnicity effects every person, even those that have tried to disassociate themselves from its embrace (Secundy, 1992). Secundy believes that, “Ethnic imprints may lie dormant or be well known, but they become most apparent in times of challenge: birth, marriage, illness, suffering, and dying” (p. 15). Ethnicity contributes to the uniqueness of how people respond to the experience of illness, disease, and disability.

Social comparison theory suggests that people will be more attracted to situations where others are similar to themselves than situations where others are different (Grand & Strohmer, 1983). Research shows there is a positive correlation between similarity and attraction variables. People with disabilities and minorities have a shared group membership dimension in their status of social deviancy and stigmatization by society.

Hernandez, Keys, Balcazer, and Drum (1998) in their study of the attitudes of people toward the Americans with Disabilities Act found that African American ethnicity was a significant predictor of negative attitudes toward disability rights. In addition, Asian Americans when compared to whites, Latin Americans, and African Americans had the least favorable attitudes toward the Americans with Disabilities Act.

Clark (1970) examined the attitudes of Mexican Americans toward illness and found negative attitudes from this population including a “machismo” denial of symptoms, perceived loss of social acceptance, and sense of being punished by God. Shapiro and Tittle (1986) studied Spanish-speaking women and their attitudes toward children and adults with disabilities. They were given hypothetical situations in which they were having a child with a disability. The study showed that women who have

support from their families will have more positive attitudes toward people with disabilities. If someone in their family might reject their child with a disability, or they would have to care for their child with a disability alone, their attitudes were negative toward people with disabilities.

Social comparison theory suggests that people will react more favorably to those who are similar to themselves. From this theoretical standpoint, Satcher & Dooley-Dickey (1992) anticipated that black human resource management students would have more favorable attitudes. They conducted a study at three major universities in Mississippi with human resource management seniors who would likely be in a position to hire workers with disabilities (Satcher & Dooley-Dickey, 1992). Their results showed that white students had more favorable attitudes than black students and that white women in particular had the most favorable attitudes. Black women were the least accepting, while white men had more favorable attitudes than black men or women. A 1979 study by Spinney showed that blacks had less positive attitudes toward persons with disabilities. In contrast, in a study of college freshman, Grand and Strohmer (1983) reported that African American students had more favorable attitudes toward persons with disabilities than Caucasian students. These results support interpersonal attraction theory using membership as the defining characteristic. This may be because the stigma associated with being different culturally due to disability is less traumatizing for an individual who is already a member of a cultural minority group (Grand & Strohmer, 1983). Other factors not discussed may have played a part in the different conclusions of various studies.

If similarity based on deviant group membership results in more positive attitudes toward persons with disabilities and a higher level of acceptance, Grand and Strohmer (1983) recommend increased recruitment of individuals from minority groups for



professional rehabilitation. Attitudes of the employment community continue to be important as a dimension of the employer's decision-making process (Satcher & Dooley-Dickey, 1992). Title I of the Americans with Disabilities Act of 1990 bars discrimination against persons with disabilities in hiring and employment. If students who are being prepared as human-resource management professionals have negative attitudes toward persons with disabilities, they may be less likely to hire or maintain in employment such persons.

### Religion and Attitudes

Social scientific literature on disability has been rapidly expanding in recent years. Rehabilitation counselors, social workers, social scientists of all disciplines have worked hard to extend society's understanding and awareness of persons with disabilities. Bryant (1993) noted that religion and disability are two areas that have received limited attention. There are many areas of contact within religion and disability; of utmost importance is the contact within religious communities and the attitudes and practices those communities follow in relation to people with disabilities. How do people of different religions feel about persons with disabilities? Do different religious communities ensure full participation of people with disabilities in the rites of the community and its life?

The 1995 Gallop Poll, reported that 58% of Americans indicated that religion was very important in their lives—45% of respondents under the age of 30 and 73% of those over age 65 (Koenig, 1997). Only 9% indicated that it was not important. The 1982 Gallop Poll asked Americans to respond to the statement, "My religious faith is the most important influence in my life." Sixty-nine percent of respondents (84% of older adults) indicated that this was completely true or mostly true. Most Americans (85%) are affiliated with Christian denominations. In June 1994, the American population was

distributed as follows: Protestant (61%), Catholic (24%), Jewish (5%), Mormon (2%), and less than 1% with Hindu or Muslim faith traditions (Koenig, 1997).

Blair and Blair (1994) suggest that, as religious professionals look at their congregations and determine whom they serve, they are likely to feel ill equipped to minister to people with disabilities. People with disabilities receive whatever attention is left over from a busy ministry; holiday and hospital visits, perhaps an occasional phone call. They further suggest that few religious professionals understand disabilities, their effects on the individual and their family, and usually are not trained to help, understand, or extend acceptance to those with disabilities. Prejudices frequently exist in religious traditions that prevent interaction with those who have disabilities. Different religious influences have taught our society that people with disabilities are causes of negative, evil sources that are a result of sin. Science has taught us that there is a cause and effect for people with disabilities. For example, a person drives too fast, gets into an accident, and then has a disability due to the injury. These authors contend that “religion has not led the way in the process of inclusion, but rather has ignored those whose differences create or arouse unconscious, deep-seated fears and superstitions”(p. 5). Religious professionals need to learn, with the rest of society, to accept people with disabilities or to remain content within the structures of segregation and exclusion.

Religious attitudes towards disease and illness vary between the religious communities. There is a widespread belief in the Jewish and Christian communities that views illness as a punishment for sins. This belief may have some weight, since as R. K. Harrison (1991, as cited in Blair & Blair, 1994) observes, “in the Pentateuch, illness is sent by God to punish the transgressor or to make clear divine displeasure”(p. 955). According to Lawrence Sullivan, some Muslims believe that “jinn (demonic spirits) insert

disease and confusion into human life" (p. 367). John 5:13 in the New Testament attributes the following statement to Jesus after he healed a man, "Behold, thou are made whole. Sin no more lest a worse thing come unto thee." This illustrates the concept of individual punishment for sins and immoral behavior. The view that the sins of the father visit upon his children and family are also rooted firmly in biblical literature (Eisenberg, Griggins, & Duval, 1982). The question that needs to be raised is do these attitudes toward illness and disease carry over into a communities' attitudes toward persons with disabilities. Some biblical scholars question whether such views have merit. The word "disabled" occurs only once in the Jewish and Christian scriptures (Lev.22: 22, Revised Standard Version). The term "disease" occurs only 58 times in the Hebrew Bible and 64 times in the Christian scriptures. Fifty of those entries are in the Book of Leviticus, in relation to a leprous disease. These texts emphasize that the leper should be removed from the community and deemed "unclean" (Bryant, 1993).

In the article "The Disabled in the Jewish Community" by Goodman (as cited in Bryant, 1993), an observation about the Jewish community is made that can be applied across the religious spectrum: "thousands of disabled receive no services; thousands more cannot participate fully in the Jewish community" (p. 1). This may be the case due to access and not necessarily attitude. People with disabilities are now making religious communities aware that it is difficult to physically enter the place of worship where religious rites and activities are held.

Another factor to be considered is the gap between religious ideals and practice (Bryant, 1993). The Christian doctrine of self-sacrificing love seems to imply an attitude and practice toward persons with disabilities as exceptional. These ideals, however, are

rarely seen in practice. This gap between religious ideals and practices is another factor that affects people with disabilities within the religious community.

Weinberg and Sebian (1980) investigated the extent to which students with and without disabilities accept biblical notions associating sin and disability. They also examined the relationship between agreement with these ideas and contact with people with disabilities. The findings indicated that a substantial minority of the sample believed that “sin or immoral behavior of an individual can cause or bring physical illness or disability” (p. 273). It was also found that “people indicating the strongest agreement with biblical ideas had the least contact with people with disabilities” (p. 273).

The traditional Jewish view of people with physical disabilities is essentially negative (Yuker, 1988). The Book of Leviticus states, “that a person with a disability or blemish could not serve as a Lord’s priest” (Yuker, 1988). In addition, even an animal with a physical malformation or blemish could not be used as a sacrifice to the Lord. It is reasonable to say that those people with physical disabilities were seen as an expression of rejection and displeasure to the Lord. Epstein (as cited in Yuker, 1988) states, “Judaism traditionally sees physical disability as a divine retribution for sinful behavior, as purification for future lives, or as a test of a person’s faith” (p. 97).

Literature shows that Jews of Eastern origin have a fatalistic approach to people with physical disabilities. Such disabilities are seen as a punishment from heaven or resulting from unnatural forces (Chigier & Chigier, 1969; Palgi, 1962). Florian and Katz (1983) state that “Eastern cultures view physical disability as unchangeable by medical advances and thus the attitudes of these cultural groups is one of passive acceptance of fate, as well as pity for people with physical disabilities. The presence of a person with a disability can affect a family’s social status” (p. 67).

The Jews of Western origin, who have been exposed to views of equality, emphasize the importance and value of human life over the physical disability (Rofe, Almagor, & Joffe, 1980). Florian and Katz (1983) say that “according to values held by the western world, persons with disabilities are expected to contribute to society and fulfill social obligations. Jews of Western origin have adopted the ideas of equality among social groups and equal opportunities for everyone” (p. 69).

Florian and Katz (1983) show that variables such as socioeconomic and educational level are important in attitude determination. The Jews of Eastern origin in Israel are of a lower socioeconomic status and have a lower level of education as compared to Jews of Western Origin. The attitudes that exist between the Jews of Eastern and Western origin may not be simply culturally biased, but rather the results of an interaction among various demographic variables (Yuker, 1988).

#### Attitudes of College Students

Fichten, Robillard, Tagalakis, and Amsel (1991) report that studies indicate students without disabilities have negative attitudes toward their peers with disabilities, which can lead to problems in interaction. Students without disabilities tend to gravitate to those who are similar to them and attribute characteristics to students with disabilities that are not only different and less socially desirable but also “opposite” to those without disabilities. This may be attributed to inadequate social skills that can contribute to problematic and infrequent interaction. However, Fichten and Bourdon (1986) show that students with and without disabilities know how to behave appropriately in frequently occurring social situations. This finding suggests that lack of knowledge is not the main cause of social strain between students with and without disabilities. These authors propose that cognitive and affective factors such as concern about the appropriateness of

one's behavior and about the reaction of a student with a disability are likely contributing to interaction difficulties on the part of students without disabilities. Fichten and Bourdon (1986) state that "Affective factors, such as discomfort and lack of ease, and cognitive factors, such as negative self-, other-, and situation-focused thoughts, are related to each other and constitute important components of interaction difficulties" (p. 327).

Gordon, Minnes, and Holden (1990) completed a study

examining thoughts and feelings about casual social interaction between students with and without disabilities and showed that students without disabilities had more negative thoughts when they contemplated interacting with a student with a disability, especially when thoughts about the other person in an interaction were concerned. (p. 79)

Social interaction in a college context with someone in a wheelchair can pose concerns about accessible locations and socializing off campus. Interacting with someone who has a visual impairment raises different issues, including concerns such as problems studying together and borrowing each other's notes. Awkwardness using certain words and certain phrases such as, "Do you see my point?" also poses difficulties. Hearing impairments are often not visible, yet difficulty communicating verbally can also cause constraints on social interaction. Gordon, Minnes, and Holden (1990) state, "The attitude and behavior of students without disabilities may have an impact on students with disabilities through self-fulfilling prophecies" (p. 80).

Inappropriate or prejudicial attitudes unintentionally communicated through nonverbal behaviors in professional helpers can be severely damaging to the already vulnerable self-esteem of children with disabilities (Holaday & Wolfson, 1997). Negative attitudes, beliefs, and feelings for students in the helping professions need to be addressed in their training.

Therapist attitudes, expectations, and beliefs can influence the working relationship between counselor and client, the diagnosis and treatment plan, client's self-judgment of worthiness, and the outcome of services being provided to the person with the disability (Holaday & Wolfson, 1997). Classification or stereotyping of people with disabilities based on a specific disability can bring a "predetermined, routine, protocol deemed appropriate for dealing with 'cases' in that label category" (Beuf, 1990, p. 5).

Individuals employed in human service occupations, those who have enjoyed interactions with people with disabilities, and those with paraprofessional educational training generally have more positive attitudes toward persons with disabilities (English, 1971, p. 10).

Gordon, Minnes, and Holden (1990) examined attitudes of university students in five health care areas: occupational therapy, physical therapy, medicine, nursing, and clinical psychology. Their findings showed that students in these majors have high positive attitudes toward persons with disabilities.

Carney and Cobia (1994) proposed that counselors do not possess negative or stereotypical beliefs toward persons with disabilities. Martin, Scalia, Gay, and Wolfe (1982) found that counselors in general hold more positive attitudes toward persons with disabilities, but among specialties, rehabilitation counselors demonstrated the most positive attitudes. However, Goodyear (1983) showed that many counselors hold negative and stereotypical attitudes towards persons with disabilities.

A study of the attitudes of counselors-in-training students toward persons with disabilities showed that these students possessed a more positive attitude toward persons with disabilities than the normative sample (Carney & Cobia, 1994). Rehabilitation counseling majors reported the most positive attitudes followed by school counseling and,

lastly, community or agency counseling majors. These findings suggest that program area selection may in part reflect attitudes or beliefs about the populations with which counselors work.

Rehabilitation counselor attitudes are an important factor in the quality of service provided to persons with disabilities. In order to facilitate optimal client rehabilitation adjustment, it would seem necessary for counselors to have positive attitudes toward their clients (Garske & Thomas, 1990).

Changing attitudes is a complicated process, but when students are made aware of incompatible or inconsistent thoughts and behaviors toward certain types of disabilities, they are more motivated to change (Crooks & Stein, 1988). Understanding the reasons for student attitudes may lead to appropriate training to produce more confident human service providers, to provide better services for persons with disabilities, and to change pessimistic outlooks (Holaday & Wolfson, 1997).

### Summary

This chapter presented a review of literature relevant to the status of attitudes toward persons with disabilities in society. It also provided a discussion on the origins of attitudes and the role of the mass media in shaping these attitudes. Additionally, it examined specific demographic variables that impact our attitudes. Finally, it presented a discussion on attitudes of college students toward persons with disabilities.

A thorough review of literature indicated that there are a variety of sources that attribute to negative attitudes toward persons with disabilities. Examining traits and variables might provide insight into the behavior and attitudes of people that can potentially affect the employment of people with disabilities. Chapter 3 will describe the design of the study.



### CHAPTER 3 METHODOLOGY

This chapter details the research process that was carried out to examine the hypotheses of this study. The methodology includes the purpose of the study, a description of the population and selection of the sample, instrumentation, data collection procedures, disability workshop, independent and dependent variables, research questions, statistical hypotheses, and data analysis procedures.

#### Purpose of the Study

The purpose of this study was to examine the attitudes, as measured by the Situational Attitude Scale-Handicapped (SAS-H), of community college students toward persons with disabilities and to see if certain personality characteristics, as measured by the 16 Personality Factor Questionnaire (16PF), made a person more or less likely to have a favorable or unfavorable attitude toward a person with a disability. In addition to the SAS-H and the 16PF, the participants completed a demographic survey, which included questions regarding gender, religion, minority status, political affiliations, and type of community in which the participant was raised.

#### Population and Selection of the Sample

This research focuses on the population of traditional age, undergraduate students who attend “Winner Community College,” a mid-size community college in central, Florida. These students were enrolled in courses taught by the Department of Behavioral Sciences during the months of May, July, or November 2001. An earlier study by

McQuilken, Freitag, and Harris (1990), which examined the “Attitudes of College Students Toward Handicapped Persons,” was done with senior level psychology students at a 4-year institution. The current study focused on community college students, which, according to El-Khawas (1996) are the largest subpopulation (37%) of college students. Undergraduates at 4-year institutions represent only 33% of all college students. Previous research on attitudes toward persons with disabilities have focused on university students at 4-year institutions and not community colleges. This study broadens the body of knowledge by tapping into a population that has been untested concerning attitudes towards persons with disabilities.

It was necessary to discover how similar the sample of students in this study was to a wider community college student population. Demographic information was gathered on the students taking the same behavioral science class at Winner Community College, the general population of community college students in the state of Florida, and community college students across the nation (see table 3-1). This information is reported as the percentages of minority, male, and female enrollment. The relevant demographic information for these three groups as well as the students who participated in this study are reported in Table 3-1.

While the sample consisted only of students from Winner Community College, the statistical population of interest was community college students from central Florida. Although the sample was not randomly taken, the demographic information indicates that the sample was fairly representative of all students in this community college and is especially true of gender. This implies that the conclusions of this study can safely be extended to the gender differences of students at this community college. Furthermore, the demographic characteristics of the sample are fairly consistent with those of

community colleges students in the state of Florida and the nation. Therefore, it may be possible to draw conclusions about the attitudes of all community college students toward persons with disabilities, although the scientific basis for these wider conclusions would not be as sound.

Table 3-1. Demographics for community college students (2001)

	Winner Community College	Florida system	United States	Sample population
Minority	25%	39%	30%	33.5%
Nonminority	75%	61%	70%	66.5%
Male	48%	40%	42%	48.4%
Female	52%	60%	58%	51.6%

(Department of Education, Division of Community Colleges, February 2001)

### Instrumentation

Three instruments were used to collect relevant data regarding the specific questions prompting this study. They were the Student Demographic Form (SDF), a Modified version of Sedlacek and Brooks's Situational Scale-Handicapped (SAS-H), and the 16 Personality Factor Questionnaire 5<sup>th</sup> edition (16PF). Relevant descriptive and psychometric information regarding each instrument is contained in the following paragraphs.

#### The Student Demographic Form (SDF)

The Student Demographic Form was developed by the researcher and contains demographic information central to this study. Specifically, the instrument gathered information about age, gender, ethnicity, political party affiliation, religious preference, and type of community in which the participant was raised. The instrument was developed to assure that appropriate data could be collected from the research sample. A copy of the SDF may be found in Appendix C.

### Modified version of Sedlacek and Brooks's Situational Scale-Handicapped (SAS-H)

The Situational Scale-Handicapped (Sedlacek & Brooks, 1970) was selected because of its ability to determine a favorable or unfavorable attitude towards persons with disabilities. The SAS-H is composed of 10 personal and social situations in which an individual's reaction depends on whether the person in the situation does or does not have a disability. The original SAS-H had three parts. The first did not specify a disability; the second used the word "blind" in the situation; and the third used the word "wheelchair." In this study, only two parts are used. The first, as in the original, did not specify any disability, but the second part specified the word "disability" instead of "blind" or "wheelchair." An example of how the two parts differ would be as follows: "You learn that you have a new roommate" on the first part and "You learn that you have a new roommate with a disability" on the second part. The scales range from good to bad, relaxed to tense, mad to not mad, fear to no fear, and right to wrong. There were 10 personal and social situations used in this instrument. The respondent made a mark on 10 5-point scales per situation. The split-half reliability coefficients of the 10 situations used was .78 (McQuilken, Freitag, & Harris, 1990).

### 16 Personality Factor Questionnaire 5<sup>th</sup> Edition (16 PF)

The 16 Personality Factor Questionnaire (16 PF), developed by Cattell, Eber, and Tatuoka (1993), was selected because of its ability to give complete coverage of personality in a relatively short period of time. The 16 PF contains 185 items that comprise the 16 primary personality factor scales. Each scale contains 10 to 15 items. Each item is independent and contributes to the score on only one factor at a time. It is a forced choice questionnaire; it does not permit a compromise answer. The 16 primary source traits are 32 polar-opposite adjectives. The 16 primary factors are warmth,

reasoning, emotional stability, dominance, liveliness, rule-consciousness, social boldness, sensitivity, vigilance, abstractedness, privateness, apprehension, openness to change, self-reliance, perfectionism, and tension. In addition to the primary scales, the 16 PF contains a set of five global factors that relate to personality. The five factors are extraversion, anxiety, tough-mindedness, independence, and self-control. Operational definitions of these factors can be found in Table 3-2 and Table 3-3. The test requires 35 to 50 minutes to complete by hand. Readability is at the fifth grade reading level.

The 16 PF uses “standardized 10” score scales. Scores range from 1 to 10 on each of the factors, with a mean of 5.5 and a standard deviation of 2. According to the 16 PF Manual, 16 PF scores of 4 to 7 have been considered in the average range, scores of 1 to 3 in the low range, and scores of 8 to 10 in the high range. Test-retest reliability coefficients for the 16 personality factors range from .69 to .86, with a mean of .80. Test-retest coefficients for the global factors ranged from .84 to .91, with a mean of .87. The 16 PF scales are based on factor analysis methods and a summary of these findings for the fifth edition can be found in the 16 PF Technical Manual (1994).

The validity of the 16 PF test is how accurately the test measures what it is designed to measure. Specifically, the factor analysis technique of direct concept validity shows how much each factor is free from contamination with other factors. Validity coefficients for the 16 PF factors ranged from .35 to .92, with a mean of .64. Also, the criterion validity of the 16 PF was verified by testing the abilities of the primary factors to predict certain criterion scores. The set of primary factors comprised significant predictors in the regressions of the following criterion scores: (a) self-esteem, (b) adjustment, (c) social skills, (d) empathy, and (e) creativity.

Table 3-2. 16PF operational definitions

16 PF variables	Operational definitions
Warmth	Tendency to be warmly involved with people versus the tendency to be more reserved socially and interpersonally.
Reasoning	Brief measure of intelligence, although it is not a replacement for a full-length measure of mental ability.
Emotional stability	Feelings about coping with day-to-day life and its challenges.
Dominance	Tendency to exert one's will over others versus accommodating others' wishes.
Liveliness	Tendency to be enthusiastic and drawn to stimulating social situations.
Rule-consciousness	Extent to which cultural standards of right and wrong are internalized and used to govern behavior.
Social boldness	Tendency to be bold and adventurous in social groups, and show little fear of social situations.
Sensitivity	Tendency to base judgments on personal tastes and aesthetic values.
Vigilance	Tendency to feel misunderstood about others motives and intentions
Abstractedness	Tendency to be occupied with thinking, imagination, and fantasy, and have the potential to get lost in thought.
Privateness	Tendency to forthright and personally open versus being non-disclosing.
Apprehension	Tendency to worry about things, and to feel apprehension and insecure.
Openness to change	Tendency to thinks of ways to improve things and to enjoy experimenting.
Self-reliance	Maintaining contact with or proximity to others.
Perfectionism	Tendency to be organized, keep things in their proper places, and to plan ahead.
Tension	Tendency to have a restless energy and to be fidgety when made to wait.

Table 3-3. 16 PF global factors operational definitions

5 global factors	Operational definitions
Extraversion	Tendency to be people oriented and to seek out relationships with others.
Anxiety	Tendency to be aroused in response to external events. Difficulty controlling emotions or reactions.
Tough mindedness	Tendency to not be open to other points of view, to unusual people, or to new experiences.
Independence	Tendency to be actively and forcefully self-determined in one's thinking and actions.
Self-control	Tendency to curbs one's urges.

16 PF Technical Manual (1994)

Table 3-4 lists some key facts about the variables in this study. In addition to the names of the variables and their operational definitions, the table describes the nature of each variable. Each variable is classified as dependent or independent. The dependent variables, which measure attitudes toward persons with disabilities, are the major variables of interest in this study. The independent variables are investigated to determine each variable's effect on the dependent variable. Each variable is classified according to its scale of measurement, that is, what range of values it can take.

This study will examine the relationship between the 21 variables from the Personality Factor Questionnaire, the 5 demographic variables from the Student Demographic Form and attitudes towards persons with disabilities as measured by the SAS-H score.

#### Data Collection Procedures

This study was conducted at Winner Community College in central Florida. The rationale for using this community college was that its student body was representative of individuals attending other community colleges in the state system. This researcher also

Table 3-4. Variable definitions

Variable name	Operational definition	Function	Scale of measurement
Gender	As defined by the responses to the gender question on the Student Demographic Form	Independent	Categorical (male or female)
Minority status	As defined by the responses to the minority status question on the SDF	Independent	Categorical (non-minority, Caucasian, or minority, any other ethnicity)
Political affiliations	As defined by the responses to the political affiliations question on the SDF.	Independent	Categorical (Democrat, Republican, Independent, No Affiliation)
Religion	As defined by the responses to the religion question on the SDF	Independent	Categorical (Christian, Catholic, Protestant, Baptist, or non-Christian, any other religions affiliation)
Community in which the participant was raised	As defined by the responses to the community question on the SDF	Independent	Categorical (large city, small town, or farm)
Attitudes toward persons with disabilities	As measured by the modified version of the SAS-H	Dependent	Continuous, with a range from 100-500
Personality factors	As measured by the 16PF and includes warmth, reasoning, emotional stability, dominance, liveliness, rule-consciousness, social boldness, sensitivity, vigilance, abstractedness, privateness, apprehension, openness to change, self-reliance, perfectionism, and tension	Dependent	Continuous, with a range from 16-160
Global factors	As measured by the 16PF and includes extraversion, anxiety, tough mindedness, independence, and self-control	Dependent	Continuous, with a range from 5-50



had a collaborative relationship with the director of student development programs and the instructors in the Department of Behavioral Sciences at this community college.

The Director of Student Development Programs at Winner Community College approved the administration of this study to students in the Behavioral Science Department. During the summer and/or fall of 2001, four Behavioral Science instructors agreed to allow this researcher to come to their Behavioral Science classes for two sessions.

### Session 1

Research study packets were given to students. Each packet contained an Informed Consent Form (Appendix B), Student Demographic Form (Appendix C), the Situational Scale-Handicapped Part 1, and the 16 Personality Factor Questionnaire. The Modified Version of the Situational Scale-Handicapped Part 2 was given separately on the second day of the study and then added to the research packet after completion. The researcher read the informed consent form to the students in each class and additional copies were available for students to take home for their records. The researcher then had the students sign the consent form and proceeded to give them instructions on how to fill out the demographic form, the Situational Scale-Handicapped Part 1, and the 16 Personality Factor Questionnaire. The researcher then asked the students if they had any questions before beginning the research study. After questions were answered by the researcher, the class completed the study packet. The students had 75 minutes to complete the informed consent, demographic form, Situational Scale Handicapped Part 1, and the 16 Personality Factor Questionnaire. It took students between 45 to 75 minutes to complete the research study packet.

## Session 2

The second session began within one week of session one. The researcher passed out the Modified Version of the Situational Scale Handicapped Part 2. Students were asked if they had any questions regarding the questionnaire. Students then proceeded to complete the packet. After each student completed Part 2 of the questionnaire, the researcher added it to the research packet. The questionnaire took between 10 and 20 minutes for students to complete. Upon completion of the research study, the researcher gave a 40-minute class presentation on "Students with Disabilities." This presentation consisted of a 10-minute Microsoft PowerPoint presentation on (a) what is a disability and (b) students with disabilities. An outline of this presentation can be found in Appendix D.

During the PowerPoint presentation, the researcher engaged the class in discussion by asking volunteers to answer the following questions:

1. Do you know anyone who has a disability?
2. If yes, do they work? Go to school?
3. Does anyone know of a law that was enacted within the last 12 years that has had an impact on persons with disabilities?
4. What is an accommodation for a person with a disability?
5. If you think you have a disability, how and where do you find out?
6. Is there any office on campus that helps students with disabilities? If yes, where is it?

After the PowerPoint presentation, the researcher passed out a handout on "Disability Etiquette--General Rules of Etiquette for Communicating with Persons with Disabilities" (Appendix E). The researcher read and discussed each of the 10 general rules with the class. The rules created discussion between the students and the researcher

during which questions were answered regarding persons with disabilities and feelings were expressed.

After completion of the etiquette activity, the researcher asked the students to get into groups of five. The students were then given a Case Study. The Case Study (Appendix F) required that the students pretend to be instructors at Winner Community College. As a group, they were to come up with possible accommodations for students with the following disabilities: (a) visual, (b) auditory, and (c) learning disability. One person in the group would record the answers and read the group's response to the class. Group responses in the classroom were compared and a discussion began. After completing this activity, the researcher told the students the nature of the study and previous findings from literature. The researcher's e-mail address was made available to all students to address any further questions or provide results from the research study when complete. The researcher thanked the students for their participation.

Approximately 25% of the students were unaware of the Americans with Disabilities Act and the existence of the Disability Resource Center on campus. When the researcher mentioned the word "disability" some students reacted in a negative way by saying some type of stereotype or using inappropriate terminology to describe a person with a disability (e.g., gimp). Overall, the students acted in a respectful way. After the presentation, several students asked for more information on the Disability Resource Center. In addition, students who had disabilities came up to me privately, told me about their disabilities, how their lives were impacted, and the effects it had on their schooling.

#### Independent Variables

The selection of the independent variables for this study was based on a review of literature and results of an earlier study done in 1990 by McQuilken, Freitag, and Harris.

The independent variables considered specific to this study were the elements contained in the Student Demographic Form:

1. Gender
2. Minority Status
3. Political Affiliations
4. Religion
5. Community in which the participant was raised

#### Dependent Variables

The first dependent variable in this study was the mean score indicating attitudes toward persons with disabilities as measured by the Modified Version of the Situational Scale-Handicapped (Sedlacek & Brooks, 1970). The second set of dependent variables was the 16 measurements on the personality factors derived from the 16 Personality Factor Questionnaire (Cattell, Eber, & Tatsuoka, 1993). A related set of dependant variables was the five global factors from the 16 Personality Factor Questionnaire. One purpose of the study was to determine whether these variables were correlated with the Situational Scale-Handicapped score.

#### Validity

##### Internal Validity

A study has high internal validity when all the potential factors that might influence the data are controlled except the one under study (Moore & McCabe, 1989). This would mean that the concept of control had been successfully implemented. If, for example, two teaching methods were being compared, internal validity would require that all differences between groups were removed except the differences in teaching method, which is the experimental variable.

In this study, the major threat to internal validity came from the presence of confounding variables. For example, when comparing the attitudes toward persons with

disabilities of men and women, there may be some other factor besides gender that could affect their responses on SAS-H disability test. To account for this, a numbers of demographic variables were measured on the subjects in the hopes of finding any confounding effect.

Another key threat to internal validity was the sensitizing effect of pretesting. Issues of tolerance raised while answering the pretest might influence the participants' responses on the posttest a week later. The space of a week between the tests provided sufficient time to lower the sensitivity of the participants to the pretest questions.

#### External Validity

External validity deals with the generalizability of results from a given study. External validity involves how well the results of a particular study apply to the world outside the research situation. If a study is externally valid or has considerable external validity, one can expect that the results are generalizable to a considerable degree (Moore & McCabe, 1989).

External validity deals with how far we can extend the conclusions. Can the results in this study be extended to the population of community college students across the nation or merely the students at Winner Community College, Florida, or to some population in between? Students at Winner Community College are representative of community college students as a whole and demographic variables (Table 3-1) were examined to ensure this. Thus, the results of this study can likely be extended to the entire community college population.

A major concern in this study related to external validity was that the manner in which the questionnaire was administered in the classroom setting may not reflect the participants responses had the questionnaire been conducted in a less formal setting.

Another external validity threat was the concern that answering the pretest questions could increase the participants' sensitivity towards tolerance of others. Thus, their heightened sensitivity may make them less representative of the general population who has not taken the pretest. It was hoped that the space of a week would alleviate this increased sensitivity.

### Research Questions

The intent of this study was to examine the attitudes of community college students toward persons with disabilities and to see if certain personality characteristics made a person more or less likely to have a favorable or unfavorable attitude toward a person with a disability. Specifically, this study sought to answer the following questions:

1. Is there a difference in the attitudes between men and women toward persons with disabilities?
2. Is there a difference in the attitudes between minorities and nonminorities toward persons with disabilities?
3. Does political affiliation make any difference in the attitudes toward persons with disabilities?
4. Is there a difference in the attitudes of Christians and non-Christians toward persons with disabilities?
5. Does the type of community in which the participant was raised make a difference in the attitudes toward persons with disabilities?
6. Are there certain personality traits that are associated with a positive or negative attitude towards persons with disabilities?

### Explanation of Hypothesis Tests

For two of these tests, previous research suggested one-tailed tests might be used to test previously established beliefs. McQuilken, Freitag, Harris (1990) found that women have more favorable attitudes toward persons with disabilities. Their study

indicated that minorities may have more favorable attitudes, but since minorities were defined as females, this was not scientifically established.

Hence, one goal was to attempt to statistically establish that women have more favorable attitudes toward persons with disabilities and that minorities have more favorable attitudes. This goal implies that one-sided alternative hypotheses should be used for these two tests (Moore & McCabe, 1999).

In all other tests, no particular difference in attitude was anticipated prior to the tests, so two-tailed hypotheses were sufficient in these situations (Moore & McCabe, 1999).

#### Research Design and Data Analysis

The design of this study can be described as both a comparative and correlational study since its purpose was to compare the mean SAS-H scores of two or more populations as well as to discover associative relationships between SAS-H scores and several personality traits. The analyses of these data was computed using the Statistical Package for the Social Sciences, 10th edition (SPSS).

The main statistical procedures used to answer the research questions were the two-independent-samples  $t$  test, Analysis of Variance (ANOVA)  $F$  test, and the  $t$  test for correlations. For questions 1, 2, and 4 in which there were only two populations of interest (i.e., the population of male students and the population of female students), the independent-samples  $t$  test was used. When independent random samples of sizes  $n_1$  and  $n_2$  are drawn from two normal populations with the goal of comparing the means of those populations, the two-sample  $t$  test is appropriate (Moore & McCabe, 1999)

The ANOVA  $F$ -test was used for questions 3 and 5, in which there were more than two populations of interest. The populations in these cases corresponded to the

multiple levels of a categorical variable (i.e., the four levels of the variable “political affiliation”). For situations in which the F-test indicated a significant difference among the means, the study required a multiple comparison procedure to determine which of the levels of the categorical variable differed in mean SAS-H scores. The F-test is inherently always one-sided, no matter what alternative hypothesis is of interest, because any differences among the group means tends to make the F-test statistic large (Moore & McCabe, 1999).

The correlation test, or *t* test for zero correlation, was used to answer question 6. The mean SAS-H score and each of the personality trait scores from the 16PF test can be considered continuous variables. Thus, a natural way to test for association between SAS-H score and any particular personality trait is through the use of correlations (Moore & McCabe, 1999). Separate hypothesis tests were conducted to determine if each personality trait (16 primary factors and 5 global factors) was significantly correlated with the mean SAS-H score. These tests showed which of the factors were correlated with attitudes toward persons with disabilities as well as the degree of association.

Throughout the study, significant results will be taken to be those with a *p*-value less than .05. This was also the significance level used in the 1990 study by McQuilken, Freitag, and Harris.

The procedures used in this data analysis assumed the dependent variable (mean SAS-H score) was normally distributed. The tests were robust to mild departures from the assumption of normality (Moore & McCabe, 1999), but precautions were taken to ensure that there were no severe departures from normality.

Since mean SAS-H score was essentially an average of responses on a large number (100) of questions, the Central Limit Theorem (CLT) indicates that it should



have an approximate normal distribution (Moore & McCabe, 1999). This hunch should be verified empirically, though, since the strict independence assumptions of the CLT may not be met (i.e., the responses on the different questions may not be independent). Histograms and normal quantile-quantile (Q-Q) plots of the mean SAS-H variable were used to verify its approximate normality.

The test for correlation between each personality trait and mean SAS-H score does not require each variable to be normal. However, if the two variables are jointly normal, the procedure tests whether there is any association between the two variables. Minus this assumption, it tests whether there is linear association between the two variables (Moore & McCabe, 1999).

### Summary

Chapter 3 developed the methodology and procedures of the study. The purpose of the study, population and selection of sample, instrumentation, data collection procedures, disability workshop, independent variables, dependent variables, research questions, validity, statistical hypotheses, research design, and data analysis were all discussed. Chapter 4 presents the findings of this study.

## CHAPTER 4 DATA ANALYSIS

### Introduction

The purpose of this chapter is to present the findings obtained from this research. These findings represent the scores of the respondents on the Situational Attitude Scale-Handicapped (SAS-H), 16 Personality Factor Questionnaire (16PF) and responses from the Student Demographic Form. A summary of the demographic information is presented followed by of the results related to each research question.

### Purpose of the Study

The purpose of this study was to examine the attitudes, as measured by the Situational Attitude Scale-Handicapped (SAS-H), of community college students toward persons with disabilities and to see if certain personality characteristics, as measured by the 16 Personality Factor Questionnaire (16PF), made a person more or less likely to have a favorable or unfavorable attitude toward a person with a disability. In addition to the SAS-H and the 16PF, the participants completed a demographic survey, which included questions regarding gender, religion, minority status, political affiliation, and type of community in which the participant was raised. Specifically, this study sought to answer the following questions:

1. Is there a difference in the attitudes between men and women toward persons with disabilities?
2. Is there a difference in the attitudes between minorities and non-minorities towards persons with disabilities?

3. Does political affiliation make any difference in the attitudes towards persons with disabilities?
4. Is there a difference in the attitudes of Christians and non-Christians towards persons with disabilities?
5. Does the type of community in which the participant was raised make a difference in the attitudes toward persons with disabilities?
6. Are there certain personality traits that are associated with a positive or negative attitude towards persons with disabilities?

#### Data Gathering and Return Rate

This research was conducted in the months of May, July, and November of 2001.

A total of 161 students were present for both sessions and completed the research packets. Following a review of the research packets, 6 were eliminated from the final analysis due to incomplete components. The final number of participants in this study was 155.

Demographic data presented in Table 4-1 document that the total sample was predominantly Caucasian (66.5 %, n = 103). However, in contrast to the earlier study by McQuilken, Freitag, and Harris (1990), which had no racial minorities, this survey included a large number of minorities. Male (48.4%, n = 75) and female (51.6%, n = 80) participation rates were almost equal. The majority of students reported a small town as their place of residence possibly because this category included the suburbs (56.8%, n = 88). There was no clear majority of students with any particular political affiliation and type of religion. In defining the different categories for religions, the researcher considered Christians to be the standard grouping of Catholics and Protestants. However, because of the large Baptist community in Florida, a separate subcategory of Christians was created for those who specifically considered themselves Baptist. Other religions and less conventional religious sects were grouped in the non-Christian category.

Table 4-1. Frequency data from the student demographic form (N = 155)

Frequency variable	Frequency	Percent
<b>Gender</b>		
Male	75	48.4
Female	80	51.6
<b>Ethnicity</b>		
African American	27	17.4
Asian American	3	1.9
Caucasian	103	66.5
International student	2	1.3
Latin American	12	7.7
Mexican American	1	0.6
Other	7	4.5
<b>Political affiliation</b>		
Democratic	47	30.3
Republican	35	22.6
Independent	13	8.4
No Party Affiliation	60	38.7
<b>Religion</b>		
Christian	101	65.2
Catholic	45	29.0
Protestant	10	6.5
Baptist	46	29.7
Non-Christian	54	34.8
Jewish	3	1.9
Buddhist	1	0.6
Mormon	1	0.6
Jehovah's Witness	3	1.9
Islam	1	0.6
Other	45	29.0
<b>Community</b>		
Large City	53	34.2
Small Town	88	56.8
Farm	14	9.0

### Research Questions

#### Equal Variances Assumption for *t* Tests

In performing the following 2-sample *t* tests, it was necessary to test whether the variances of the two populations could be considered equal. SPSS provided a test for

equal variances, and in each case, the hypothesis of equal variances was not rejected. Hence, each of the following *t* tests was carried out under the assumption of equal variances.

#### Research Question 1—Gender

The first research question asked whether the mean SAS-H score for females was significantly higher than the mean SAS-H score for males. The sample of males and the sample of females in the study were independent samples, so the independent-samples *t*-test was appropriate. SAS-H scores were calculated for the males and for the females, and the *t*-statistics and associated 1-tailed *p*-value are given in Tables 4-2 and 4-3.

Table 4-2. Gender: *t* test group statistics and independent samples *t* test for equality of means

Gender	N	Mean	Std. deviation	<i>t</i>	Df	Sig. (1 tailed)
Male	75	3.4347	.5413			
Female	80	3.6553	.5390			
<i>t</i> test for gender difference				-2.541	153	0.006*

*p* < .05

Table 4-3. 95% confidence interval for the difference of gender means

	Std. error difference	Lower	Upper
Mean SAS-H	8.681E-02	-0.3921	-0.0491

The mean SAS-H score for females is significantly higher (*p*=.006) than the mean score for males. This result supports the hypothesis that female community college students have better attitudes toward persons with disabilities than do male students. Since the difference in mean SAS-H scores between males and females in the sample is statistically significant, we can extend the conclusion that females have better attitudes toward persons with disabilities than males do to the entire population of community college students. In other words, the difference between female and male scores observed

in the sample is large enough to be highly probable that the true male attitudes and female attitudes were unequal.

#### Research Question 2—Minority Status

The second research question asked whether the mean SAS-H for minorities was significantly higher than the mean SAS-H score for nonminorities. The sample of minorities and the sample of nonminorities in the study were independent samples, making the independent samples *t* test appropriate. SAS-H scores were calculated for the minorities and nonminorities, and the *t*-statistic and associated 1-sided *p*-value are reported in Tables 4-4 and 4-5.

Table 4-4. Minority status: *t* test group statistics and independent samples *t* test for equality means

Ethnicity	N	Mean SAS-H	Std. deviation	<i>t</i>	Df	Sig. (1 tailed)
Minorities	52	3.5333	.5634			
Nonminorities	103	3.5562	.5451			
<i>t</i> test for minority status				-.245	153	0.404
<i>p</i> < .05						

Table 4-5. 95% confidence interval for the difference of minority status means

	Std. error difference	Lower	Upper
Mean SAS-H	9.378E-02	-0.2082	0.1623

The mean SAS-H score for minorities (*p* = .404) is not significantly greater than that of nonminorities. This result would not support the hypothesis that minority students have more favorable attitudes toward persons with disabilities. In this sample, the mean SAS-H scores for minorities were very close to the scores for nonminorities. Hence, the idea that minorities and nonminorities have similar attitudes toward persons with disabilities is not refuted by the sample evidence. The evidence in the sample is not strong enough to support the idea that minorities have a higher true mean SAS-H.

### Research Question 3—Political Affiliations

The third research question asked whether there is a significant difference in the mean SAS-H scores due to differing political affiliations (Democrat, Republican, Independent, and not affiliated with any political party). An ANOVA F-Test was used to determine whether the political views have a significant effect on mean SAS-H score. Results of these analyses are reported in Tables 4-6 and 4-7.

Table 4-6. Mean SAS-H for differing political affiliations

Political	N	Mean	Std. deviation
Democrat	47	3.6304	.5176
Republican	35	3.3040	.4406
Independent	13	3.6962	.5835
Not affiliated	60	3.5950	.5921
Total	155	3.5485	.5496

Table 4-7. Mean SAS-H ANOVA F-test political affiliations

	Sum of squares	df	Mean square	F	Sig
Between groups	2.800	3	.933	3.224	.024*
Within groups	43.714	151	.289		
Total	46.514	154			

$p < .05$  (\*indicates significant result)

The mean SAS-H score ( $p = .024$ ) shows that there is a significant effect of political affiliations on attitudes towards persons with disabilities. This result supports the alternative hypothesis that there is a difference in attitudes of people with different political affiliations. The significant results of the F-test shows that the differences observed in the sample for mean SAS-H scores of the various political affiliations reflect true differences due to political affiliations in the population. In other words, the sample differences were large enough to conclude that they are not merely due to random chance. A multiple comparisons procedure was performed to determine the exact nature of the differences due to political affiliations.

Table 4-8. *p*-values for multiple pairwise (Tukey's HSD test) comparisons of variable levels

Comparison	<i>p</i> -value
Democrat vs. Republican	.039*
Democrat vs. Independent	.972
Democrat vs. N/A	.997
Republican vs. Independent	.112
Republican vs. N/A	.048*
Independent vs. N/A	.939

*p* < .05

An examination of Table 4-8 of means for the various political affiliations and the listed *p*-values showed the following significant pairwise differences: (a) Democrats and Republicans have significantly different mean SAS-H scores (with Democrats' score being higher), and (b) Republicans and no affiliation have significantly different mean SAS-H scores (with Republicans' score being lower). The multiple comparison procedure used was Tukey's HSD test, which is a more robust procedure. This provides stronger protection than a comparison-wise procedure, which controls the "probability of such a false conclusion at .05 for each separate comparison" (Moore & McCabe, 1999, p. 771). Hence, the *p*-values given account for the fact that several pairwise comparisons were made simultaneously.

The sample mean SAS-H scores for Republican students were significantly different (lower) than those for Democratic and students not affiliated, meaning that the researcher can safely conclude that true attitudes toward disabilities in Republican students in the community college population are different than their Democratic and nonaffiliated counterparts.

#### Research Question 4—Religion

The next research question asked whether there is a significant difference in the mean SAS-H score for Christians and the mean SAS-H score for non-Christians. The



sample of Christians and non-Christians in the study were independent samples, so the independent samples *t* test was appropriate. SAS-H scores were calculated for the Christians and non-Christians, and the *t*-statistic and associated 2- tailed *p*-value are reported in Tables 4-9 and 4-10.

Table 4-9. Religion: *t* test group statistics and independent samples *t* test for equality of means

Religion	N	Mean SAS-H	Std. deviation	t	Df	Sig. (2 tailed)
Non-Christian	54	3.5344	.5486			
Christian	101	3.5560	.5527			
t test for religion difference				-.232	153	0.817

$p < .05$

Table 4-10. Ninety-five percent confidence interval for the difference of religion means  
 $M_{\text{non-Christian}} - M_{\text{Christian}}$

	Std. error difference	Lower	Upper
Mean SAS-H	0.09293	-0.2052	0.162

The mean SAS-H score for Christians ( $p = .817$ ) is not significantly different from that for non-Christians. This result fails to support the hypothesis of a difference between the attitudes of Christians and non-Christians. The mean SAS-H scores in this sample were nearly the same for Christians and non-Christians—in fact, the difference is small enough to be attributed to sampling variation. Thus, the sample provides little evidence to refute the idea that Christians and non-Christians have equal attitudes toward persons with disabilities. The differences in the sample means are too small to conclude that the true mean SAS-H scores of Christians and non-Christians are different.

#### Research Question 5—Community Types

The fifth research question asked whether there is a significant effect on the mean SAS-H score from the type of community in which a person was raised: large city (urban), small city (suburb), farm. Since the categorical variable “community” has more

than two categories, an ANOVA F Test was used to determine whether community had a significant effect on mean SAS-H score. These calculations are reported in Tables 4-11 and 4-12.

Table 4-11. Mean SAS-H for differing community types

Community	N	Mean	Std. deviation
Urban	53	3.5932	.5270
Suburban	88	3.4978	.5421
Farm	14	3.6979	.6718
Total	155	3.5485	.5496

Table 4-12. Mean SAS-H ANOVA F-test community types

	Sum of squares	df	Mean square	F	Sig
Between Groups	.644	2	.322	1.067	.347
Within Groups	45.869	152	.302		
Total	46.514	154			

$p < .05$

There is no significant effect on mean SAS-H score due to type of community. This result fails to support the hypothesis of a difference in attitudes toward persons with disabilities based on the type of community in which a person was raised. The mean SAS-H scores in the sample for the three different types of communities were not far enough apart to conclude that any significant effect on attitudes toward persons with disabilities exists due to the type of community in which the individual was raised.

#### Research Question 6—Personality Traits Associated with Attitudes Toward Persons with Disabilities

The sixth and final research question explored the relationship between the 16 PF traits and the 5 global factors, and the SAS-H disability attitude scores (Table 4-13). Significant results (marked with asterisks) were those with a  $p$ -value less than .05. The  $p$ -values refer to 21 individual tests (16PF variables and 5 global factors) of the correlations between SAS-H score and each 16PF factor, not to a single simultaneous test. This means that for each individual test for correlation, a significant result has a 5%

chance of being false. It does not imply anything about any simultaneous inference, since the correlations between each variable and SAS-H score are being examined separately, not simultaneously. The fact that a certain factor is significantly correlated with SAS-H score means that of the true correlation between that factor and SAS-H score was actually zero, the probability of observing such an extreme sample correlation coefficient as was actually observed would be very small, specifically less than .05.

Table 4-13. Correlation of SAS-H score with each 16 PF variable and 5 global factors

16 PF Variables	Correlation	<i>p</i> -value
Warmth	.168	.036*
Reasoning	.066	.414
Emotional stability	.209	.009*
Dominance	.053	.509
Liveliness	.164	.041*
Rule-consciousness	.178	.027*
Social boldness	.212	.008*
Sensitivity	.020	.803
Vigilance	.150	.063
Abstractedness	.037	.649
Privateness	.113	.163
Apprehension	.001	.989
Openness to change	.242	.002*
Self-reliance	-.183	.023*
Perfectionism	.060	.456
Tension	-.197	.014*
Global factors		
Extraversion	.226	.005*
Anxiety	-.227	.005*
Tough-mindedness	.147	.068
Independence	.140	.082
Self-control	.101	.210

$p < .05$  (\*indicates significant result)

The following factors had a significant positive correlation with SAS-H score: warmth ( $p = .036$ ), emotional stability ( $p = .009$ ), liveliness ( $p = .041$ ), rule-consciousness ( $p = .027$ ), social boldness ( $p = .008$ ), openness to change ( $p = .002$ ), and extraversion ( $p = .005$ ). The following factors had a significant negative correlation with SAS-H score: self-reliance ( $p = .023$ ), tension ( $p = .014$ ), and anxiety ( $p = .005$ ). The

negative correlation means that people who score higher on these personality traits will tend to have less accepting attitudes towards persons with disabilities.

An explanation of significant correlations can be described as follows (see Table 3-2 for operational definitions of these terms):

1. As social and interpersonal warmth of an individual increases, the attitude toward persons with disabilities tends to improve.
2. As an individual's emotional stability increases, the attitude toward persons with disabilities tends to improve.
3. As liveliness of an individual increases, the attitude toward persons with disabilities tends to improve.
4. As rule consciousness of an individual increases, the attitude toward persons with disabilities tends to improve.
5. As social boldness of an individual increases, the attitude toward persons with disabilities tends to improve.
6. As openness of change of an individual increases, the attitude toward persons with disabilities tends to improve.
7. As extraversion of an individual increases, the attitude toward persons with disabilities tends to improve.
8. As self-reliance of an individual increases, the attitude toward persons with disabilities tends to worsen.
9. As tension of an individual increases, the attitude toward persons with disabilities tends to worsen.
10. As anxiety of an individual increases, the attitude toward persons with disabilities tends to worsen.

The following factors were not significantly correlated with SAS-H score :

reasoning ( $p = .414$ ), dominance ( $p = .509$ ), sensitivity ( $p = .803$ ), vigilance ( $p = .063$ ), abstractedness ( $p = .649$ ), perfectionism ( $p = .456$ ), tough-mindedness ( $p = .068$ ), independence ( $p = .082$ ), and self control ( $p = .210$ ).

A correlation matrix (see Table 4-14) of the primary factors and the global factors was run to show which factors are associated with each other. Table 4-15 identifies the

pairs of factors that are strongly positively associated; Table 4-16 identifies the pairs that are negatively associated. If the two factors are strongly positively correlated, subjects with high values of one tend to have more high values of the other, while subjects with low values of one tend to have low values of the other. Conversely, if two factors are negatively correlated subjects with high values of one tend to have low values of the other, and subjects with low values of one tend to have high values of the other.

One reason why it is important to examine the correlations between pairs of primary factors and global factors is that it sheds light on their relationships with the SAS-H score. If two factors are each significantly correlated with the SAS-H score, they may be varying with SAS-H score independently, but the two factors may simply be highly correlated and their correlation with SAS-H score may describe a single phenomenon rather than two separate phenomena. For example, Table 4-13 shows that extraversion and liveliness are significantly positively correlated with the SAS-H score. However, Table 4-15 indicates that the factors extraversion and liveliness are themselves positively correlated. So the relationships with the SAS-H score of the two factors may reflect a single phenomenon in that as extraversion increases, liveliness typically increases as well. One can see similar situations when looking at the connection between extraversion and warmth, anxiety and tension, and extraversion and social boldness.

On the other hand, anxiety has a significantly negative correlation with SAS-H score while emotional stability is significantly positively correlated with SAS-H score. This also may reflect single phenomenon because Table 4-17 shows a strong negative correlation between anxiety and emotional stability. One can observe similar situations with the pairs of factors of extraversion and self-reliance, as well as self-reliance and liveliness.

Table 4-14. Correlation matrix

Proximity Matrix

Correlation between Vectors of Values

	WARMTH	REASON	EMOTIVAB	DOMIN	LOVEUSE	ROLECON	BOOBOLD	SENSE	VOILANC	ABSTRACT	PRIVATE	APPREHEN	OPESCHAN	SELFRELI	PERFECT	TENSION	EXTRAVER	ANXIETY	TOUGHMAN	INDIFFER	SELFCONT
WARMTH	1.00																				
REASON	-.024	1.00																			
EMOTIVAB	.034	-.062	1.00																		
DOMIN	.036	-.038	.132	1.00																	
LOVEUSE	.246	-.047	.254	-.054	1.00																
ROLECON	.094	.091	.046	-.047	-.022	1.00															
BOOBOLD	.161	-.180	.386	.456	.456	-.202	1.00														
SENSE	.303	-.100	-.300	-.046	.073	-.025	.000	1.00													
VOILANC	-.076	.075	-.332	.113	-.062	-.176	-.176	-.100	1.00												
ABSTRACT	-.076	.075	-.332	.113	-.062	-.176	-.176	-.100	-.064	1.00											
PRIVATE	-.460	-.020	-.128	-.174	-.100	-.161	-.211	.228	.130	.385	1.00										
APPREHEN	.243	.133	.133	-.336	-.147	.100	.151	.151	.227	.315	-.047	1.00									
OPESCHAN	.007	-.108	.072	.230	-.163	-.166	-.166	-.166	.151	.227	.315	.254	1.00								
SELFRELI	-.065	-.080	.156	-.186	-.035	-.014	-.348	-.095	.238	.113	.254	.064	.190	1.00							
PERFECT	.441	-.051	.072	.072	.072	.072	.072	.072	.072	.072	.072	.072	.072	.072	1.00						
TENSION	.003	.100	-.463	.077	.076	-.014	-.382	.175	.203	-.348	.145	.158	.110	-.798	-.127	1.00					
EXTRAVER	.721	-.012	.214	.268	-.076	.064	.577	.044	.274	.246	.031	.554	-.031	.146	.065	.644	1.00				
ANXIETY	.074	.159	-.003	.178	-.135	-.281	-.162	-.711	-.239	-.517	.166	.166	-.173	.711	.083	.034	.617	1.00			
TOUGHMAN	.111	-.004	.176	.055	.055	.055	.162	.162	.238	.238	.176	.166	.166	-.018	-.044	.376	.020	.376	1.00		
INDIFFER	.006	-.063	.073	-.115	-.416	.728	-.240	-.006	-.125	-.024	-.178	-.116	-.116	.248	.203	.742	.028	.020	.020	1.00	
SELFCONT																					1.00

This is a similarity matrix

Table 4-15. Pairs of factors that are strongly positively correlated ( $r > .5$ )

Factors	Correlation (r)
Independence/dominance	.874
Extraversion/liveliness	.763
Self-control/self-reliance	.742
Self-control/rule conscious	.729
Extraversion/warmth	.721
Independence/social boldness	.660
Anxiety/apprehension	.654
Anxiety/tension	.644
Anxiety/vigilance	.579
Extraversion/social boldness	.577
Independence/openness to change	.548
Self-reliance/privateness	.504

Table 4-16. Pairs of factors that are strongly negatively correlated ( $r < -.5$ )

Factors	Correlation (r)
Anxiety/emotional stability	-.803
Extraversion/self-reliance	-.795
Extraversion/privateness	-.746
Tough mindedness/sensitivity	-.711
Tough mindedness/openness to change	-.711
Self-reliance/liveliness	-.535
Tough mindedness/abstractedness	-.517

### Summary of Results

Some significant differences were found when examining the data. Women were found to have more favorable attitudes toward persons with disabilities, as compared to men. No statistical significance was found between minorities and nonminorities regarding their views toward persons with disabilities. Republicans had significantly different mean SAS-scores than Democrats (Republicans' scores being lower) and a significantly different mean score than those students not affiliated with a party (again, Republicans' scores being lower). There was a statistically significant effect of political affiliation on attitudes toward persons with disabilities. The data also showed no significant difference in attitudes toward persons with disabilities between non-Christians

and Christians nor in the type of community in which the participants were raised and their view toward persons with disabilities.

The analysis conducted to answer research question 6, which examined 16 personality factors and 5 global factors, suggested that there are certain personality factors associated with a positive and negative attitude toward persons with disabilities. The 16 Personality Factor Questionnaire, when correlated with the SAS-H, showed that people who exhibit the following personality characteristics have a more favorable attitude toward persons with disabilities: warmth, emotional stability, liveliness, rule-consciousness, social boldness, openness to change, and extraversion. People with more negative attitudes toward persons with disabilities exhibit the following characteristics: anxiety, tension, and self-reliance.



## CHAPTER 5

### DISCUSSION

The purpose of this study was to examine the attitudes, as measured by the Situational Attitude Scale-Handicapped (SAS-H), of community college students toward persons with disabilities and to see if certain personality characteristics, as measured by the 16 Personality Factor Questionnaire (16PF), made a person more or less likely to have a favorable or unfavorable attitude toward a person with a disability. In addition to the SAS-H and the 16PF, the participants completed a demographic survey, which included questions regarding gender, religion, minority status, political affiliation, and type of community in which the participant was raised.

The following research questions were tested and analyzed:

1. Is there a difference in the attitudes between men and women toward persons with disabilities?
2. Is there a difference in the attitudes between minorities and nonminorities towards persons with disabilities?
3. Does political affiliation make any difference in the attitudes towards persons with disabilities?
4. Is there a difference in the attitudes of Christians and non-Christians towards persons with disabilities?
5. Does the type of community in which the participant was raised make a difference in the attitudes toward persons with disabilities?
6. Are there certain personality traits that are associated with a positive or negative attitude towards persons with disabilities?

The main statistical procedures used to answer the research questions were the two independent samples *t* test, Analysis of Variance (ANOVA) F-test and the *t* test for correlations. For questions 1, 2, and 4 in which there were only two populations of interest (e.g., the population of male students and the population of female students) the independent-samples *t* test was used.

The ANOVA F-test was used for questions 3 and 5, in which there were more than two populations of interest. The populations in these cases corresponded to the multiple levels of a categorical variable (e.g., the four levels of the variable political affiliation). For situations in which the F-test indicated a significant difference among the means, the study required a multiple comparison procedure to determine which of the levels of the categorical variable differed in mean SAS-H scores.

The correlation test, or *t* test for zero correlation, was used to answer question 6. Mean SAS-H score and each of the personality trait scores from the 16PF test can be considered continuous variables. Separate hypothesis tests were conducted to determine if each personality trait (16 primary factors and 5 global factors) was significantly correlated with mean SAS-H score. These tests showed which factors were correlated with attitudes towards persons with disabilities as well as the degree of association.

The analysis of data covered the following areas and how they impacted a person's attitude toward people with disabilities: gender, minority status, religion, personality characteristics, type of community lived in, and political affiliation. The results of the analyses are discussed in this chapter. This chapter also describes implications for practice, and recommendations for future study.

### Conclusions

The analysis of data provided significant statistical support for the relationship between gender and attitudes toward persons with disabilities. Female community

college students were found to have more favorable attitudes toward persons with disabilities than males. The earlier study done by McQuilken, Freitag, and Harris (1990) showed a near significant effect of gender, with women having more favorable attitudes toward persons with disabilities. These results, when compared to the research of others, support the idea that women have more favorable attitudes toward the disabled. Levy, Jessop, Rimmerman, Francis, and Levy (1993) in their study of determinants of New York State employers towards the employment of persons with severe handicaps, found that women were more inclined than men to hire persons with disabilities. Stovall and Sedlacek (1983) studied the differences between male and female college students and their attitudes toward students with physical disabilities. They found that women, regardless of whether the student with the disability was blind or in a wheelchair, had more positive attitudes than men. The relationship between gender and attitudes toward persons with disabilities is supported by Adelson, Carey, and Croke (1972), Siegfried and Toner (1981), Satcher and Dooley-Dickey (1992), Berry and Meyer (1995), all of whom found a significant relationship between gender and attitudes toward persons with disabilities with women having more favorable attitudes.

The aforementioned studies found, in summary, that women were better communicators, had better dealings with the public, were more lenient, more willing to enter into close social relationships with people with disabilities, more approachable with a job-related problem, more willing to hire people with disabilities, and liked to work with people of all types.

This study found no statistical support for the relationship between minorities and attitudes toward persons with disabilities. Social comparison theory suggests that people will react more favorably to those similar to themselves. From this theoretical standpoint,

Satcher and Dooley-Dickey (1992) anticipated that minorities would have more favorable attitudes than whites due to the shared minority status with persons with disabilities. Research has demonstrated conflicting results on minority and non-minority attitudes toward persons with disabilities. Hernandez, Keys, Balcazar, and Drum's (1998) study of the attitudes of people toward the Americans with Disabilities Act found that African American ethnicity was a significant predictor of positive attitudes toward disability rights. However, a study done at three major universities in Mississippi found that white students have more favorable attitudes than black students and that white women, in particular, had the most favorable attitudes. Satcher and Dooley-Dickey (1992) found that black women were the least accepting of persons with disabilities while white men had more favorable attitudes than black men or women.

No statistical support for a relationship between Christian and non-Christian attitudes toward persons with disabilities was evident in this study. In the earlier study by McQuilken, Freitag, and Harris (1990), which examined people's responses to the question "How religious do you consider yourself to be?" instead of analyzing the relationship between Christian and non-Christian attitudes, found that individuals who identified themselves as more religious tended to have more favorable attitudes toward persons with disabilities. Religion and disability are two areas that have received limited attention in social science literature (Bryant, 1993). Previous studies of religious attitudes toward disease and illness have been broad in nature, focusing on the various prejudices that frequently exist in religious traditions. Different religious influences have affected our societal mores by insinuating that people with disabilities are born due to negative or evil acts committed by a sinner. Although no significant differences were found, this

study added to the body of knowledge concerning religion and attitudes toward persons with disabilities by examining the differences between Christians and non-Christians.

Relationships were detected between personality characteristics and attitudes toward persons with disabilities. The 16 Personality Factor Questionnaire, when correlated with the SAS-H, showed that people who exhibit the following personality characteristics have a more favorable attitude toward persons with disabilities: warmth, emotional stability, liveliness, rule-consciousness, social boldness, openness to change, and extraversion. People with more negative attitudes toward persons with disabilities exhibit the following characteristics: anxiety, tension, and self-reliance.

Research studies that have focused on identifying personality variables influencing attitudes toward persons with disabilities have focused more on finding negative variables instead of positive ones. Livneh (1988) identified a list of personality variables presumably influencing attitudes toward persons with disabilities. His findings also concluded that anxiety was a variable that had negative implications. In addition, Berry and Meyer (1995) studied 176 employed adults from a variety of work settings and examined the impact of their attitudes on employing people with disabilities. Participants possessing negative attitudes toward persons with disabilities indicated they were anxious, depressed, or hostile individuals. Hahn (1993), when examining components of attitudes toward disability, found that aesthetic and existential anxiety had a profound impact on attitudes toward persons with disabilities. The perceived unattractiveness of a disability is a source of anxiety that leads to negative attitudes toward persons with disabilities. English (1971) explored attitudes toward people with disabilities and found that persons with more positive attitudes toward people with disabilities tended to exhibit lower levels of overall anxiety.

An earlier study done by McQuilken, Freitag, and Harris (1990) found significant correlations between the SAS-H score and two of the 16 PF variables (apprehensive and controlled). Persons who were found to exhibit these characteristics were more likely to have a negative attitude toward a person with a disability.

The analysis of data provided no statistical support for the relationship between community type and attitudes toward persons with disabilities. The type of community in which the participant was raised (large city, small town, farm) had no effect on attitudes toward persons with disabilities. This supports the earlier finding of McQuilken, Freitag, and Harris (1990) that community type had no effect on attitudes toward persons with disabilities.

Some statistical support for the relationship between political affiliation and attitudes toward persons with disabilities was evident from my study. Democrats and Independents, when compared with Republicans, were found to have more favorable attitudes toward persons with disabilities. This finding differs from that of McQuilken, Freitag, and Harris (1990), who found that political affiliations were not significant when determining attitudes toward persons with disabilities.

#### Implications for Practice

The desired outcome of this research is to help prepare leaders who have more positive attitudes toward persons with disabilities. To do this, it is first necessary to identify the qualities that go hand-in-hand with a more accepting attitude. This study has identified the attributes and characteristics of people who react more favorably toward persons with disabilities.

Second, the improvement of attitudes toward persons with disabilities as a priority on college campuses and for college students begins with a vision. An institution

must have a vision that includes and accepts people with disabilities. All administrators, faculty, staff, student assistants, and students must take part and buy into that vision for it to be successful. The taking part in and embracing of a vision must be deliberate. The vision or mission statement needs to be written, discussed, and practiced. Behavior that fosters acceptance needs to be acknowledged and rewarded (e.g., an article in the school or department newsletter, positive feedback from colleagues, a pat on the back, a round of applause at a faculty or staff meeting).

This is not an easy task. From the Affective-Cognitive theoretical viewpoint (Yuker, 1988) societal perception of the cause of disability has a great influence on one's behavior toward a person with a disability. Regardless of the cause (external, self-created, or accidental) the disabled need to be accepted with the limitations posed by the disability.

Since the sample group in the study represents a typical group of community college students, implications for improving attitudes of this group can be extrapolated and offered as suggestions for student affairs administrators so that staff training can be undertaken to increase interaction with people with disabilities. Faculty, staff, and students, in concert, need to become more at ease with the frailties of the human condition whether or not a disability is evident. (Many disabilities are hidden in that a casual observer finds nothing atypical in a person's appearance.)

Student affairs administrators are in a position to create a curriculum that develops a student's intellectual, emotional and ethical development. Educating faculty, staff, and administrators about the benefits of creating an inclusive campus community that values people of all cultures and whose attitudes, language, and behavior reflect awareness and sensitivity to other cultures and backgrounds is a worthy undertaking

(Blimling & Whitt, 1999). Students who are made aware of incompatible or inconsistent thoughts and behaviors toward certain types of people are more motivated to change (Fichten et al., 1991).

There will be an uphill battle. Present behavior is the result of years of attitudinal development that occurred through early life influences. The past experience-present situation theory (Yuker, 1988) highlights the stronghold that the first few years of development have on present personality.

For the student affairs administrator, it is critical to train faculty and staff in how to communicate with persons with disabilities. This should include sensitivity training and presentations by guest speakers who have varying types of disabilities discussing how their lives are impacted on a daily basis. Since this and studies from the literature review show that people who have tension and anxiety as a personality trait are more likely to have negative attitudes toward persons with disabilities, stress management workshops should be provided to faculty and staff. Student affairs administrators should hire people who have personality traits that are associated with such positive attitudes as warmth, emotional stability, liveliness, social boldness, and openness to change. In addition, student affairs administrators should develop strategies to identify people who exhibit the personality traits associated with positive attitudes.

The more familiar you are with a disability, the more comfortable you can be around people with a disability. The fear of the unknown is removed. This study shows that warm, emotionally stable, bold, rule-conscious, self-reliant, lively, open to change people tend to be more accepting of those with disabilities. However, one also needs to look at those who do not have these characteristics to see how to improve their perceptions. Since these people are more reticent in nature, greater effort must be



expended to reach out to them so that their tendency to shy away is diminished.

Administrators should also create programs that enhance disability awareness. Weekend retreats, seminars, and conferences should be available to student leaders to learn techniques and approaches for including people with disabilities in events and group membership.

Internally originated-externally originated theory (Yuker, 1988) emphasizes the impact that demographics or personality characteristics (gender, age, socioeconomic status, educational level, low self-esteem, anxiety, rigidity, aggressiveness) have on attitudinal development.

Positive attitudes toward persons with disabilities are found to improve through verbal persuasion by someone who is credible, powerful, and attractive and who emphasizes similarities rather than differences between people with and without disabilities. Having a person with a disability provide the training, especially when the person providing the training is of equal or higher status than the audience, is recommended. People with disabilities need to be involved in designing intervention programs because of evidence that even well-intentioned responses by people without disabilities may miss the mark (Shapiro, 1993). In addition, positive interaction with people with disabilities who have good interpersonal skills, enjoy leisure activities, have good academic abilities, are gainfully employed, or display competence in a variety of areas valued by others improves a person's perceptions of people with disabilities (Evans, 1976; Fichten et al., 1991). Students who are exposed to people with disabilities and have the opportunity to get to know them and their abilities beyond the disability have more positive attitudes (Palmerton & Frumkin, 1969; Olson & Zanna, 1993). In addition to instrumental support, affective support may be useful in allowing people the

opportunity to express their feelings about negative attitudes encountered and to develop strategies for dealing with negative responses. Student affairs administrators need to provide information about people with disabilities and arrange for sensitivity training for future coworkers of persons with disabilities as a means of creating a positive working environment (Esposito, 1991). A purposely planned curriculum can be effective in changing people's attitudes toward persons with disabilities (Lazar, Gensley, & Gowan, 1972).

This study supports that certain personality traits are held in common by those with favorable attitudes toward persons with disabilities. Screening for these factors, and identifying potential students who have them, is expected to lead to the training of people who are favorably disposed to those with disabilities.

#### Recommendations for Future Research

Recommendations for future research are as follows:

1. Research at different types of institution (e.g., community colleges and universities, public and private, predominately white colleges and universities and historically black colleges and universities, coed institutions, women's colleges and schools designated Blind and Deaf Schools) is needed to more comprehensively study the relationship between attitudes toward persons with disabilities and specific demographic and personality variables.
2. Continue to study and screen for these traits when hiring future leaders to work with those with disabilities. It is important, if not crucial, that people who will have direct contact with and responsibility for working with and training those with disabilities have favorable attitudes. Our future leaders will come from the ranks of students pursuing college majors in human services, human resource management, and rehabilitation. To change perceptions of what the disabled can accomplish means that we must have a "cheerleading team" for them. Certain college majors draw people who are oriented toward people, rather than data or things. Future leaders need to be advocates for promoting the hiring of persons with disabilities. They have to see the person, not the disability, and truly champion the capabilities, not disabilities, of the person.
3. Explore the effects of gender of people who hire persons with disabilities and the implications.

4. Examine the effects of age and views toward persons with disabilities, preschool through senior citizens, to determine when and how negative or positive attitudes begin and how they change through time.
5. Review the effects of schoolwide curriculum pertaining to persons with disabilities. A longitudinal study of participants who go through such a curriculum should be conducted to see if there is an impact on their views when they get older.
6. Examine and explore politicians' attitudes toward persons with disabilities and their impact on legislation.

The results of this study were not surprising. The absence of current information or research since the inception of federal laws to champion the rights of the disabled was surprising.

Has federal or state legislation impacted perceptions? Are the disabled, who were previously seen and not heard, now seen but ignored? Are the disabled part of the mainstream? Can you legislate acceptance? Such questions need to be clarified with additional research.

APPENDIX A  
IRB APPROVAL LETTER



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Phone: (352) 392-0433  
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E-mail: [irb2@ufl.edu](mailto:irb2@ufl.edu)  
<http://web.ortge.ufl.edu/irb/irb02>

DATE: 25-May-2001

TO: Ms. Laura Artale  
900 SW 62nd Blvd. Apt. J-61  
Gainesville, FL 32607

FROM: C. Michael Levy, Chair *CML/dl*  
University of Florida  
Institutional Review Board

SUBJECT: **Approval of Protocol # 2001 - 274**

TITLE: Attitudes of Community College Students toward people with disabilities

FUNDING: Unfunded

I am pleased to advise you that the University of Florida Institutional Review Board has recommended approval of this protocol. Based on its review, the UFIRB determined that this research presents no more than minimal risk to participants. Given your protocol, it is essential that you obtain signed documentation of informed consent from each participant. Enclosed is the dated, IRB-approved informed consent to be used when recruiting participants for the research.

If you wish to make any changes to this protocol, including the need to increase the number of participants authorized, you must disclose your plans before you implement them so that the Board can assess their impact on your protocol. In addition, you must report to the Board any unexpected complications that affect your participants.

If you have not completed this protocol by 24-May-2002, please telephone our office (392-0433), and we will discuss the renewal process with you.

It is important that you keep your Department Chair informed about the status of this research protocol.

CML:dl/js

cc: Dr. Mary Howard-Hamilton

APPENDIX B  
INFORMED CONSENT

Dear Student,

I am an advanced doctoral student in the Department of Educational Leadership, Policy and Foundations at the University of Florida, under the supervision of Dr. Lamont Flowers. I will be conducting research on attitudes of Community College students toward people with disabilities. You will be asked to complete two questionnaires which include questions relating to personality and disability traits. There will be an additional demographic sheet. There are no anticipated risks, compensation, or other direct benefits to you as a participant in this study. Your participation is completely voluntary. You are free to withdraw your consent to participate and may discontinue your participation at any time without consequence. Your identity will be kept confidential to the extent provided by law. When the study is completed and the data have been analyzed, the list with your name and code will be destroyed. The test will be stored in a locked cabinet accessible to only me and my supervisor. Your name will not be used in any report. It will take approximately 2 hours to complete both questionnaires. Thank you for participating in this study.

If you have any questions about this research protocol, please contact me at 374-7249, or my faculty supervisor, Dr. Lamont Flowers, at 392-2391 ext. 282.

Questions or concerns about your rights as a research participant may be directed to the UFIRB office, University of Florida, Box 112250, Gainesville, FL 32611: ph (352)392-0433.

Sincerely,

Laura Artale  
Principal Investigator

Dr. Lamont Flowers  
Faculty Supervisor

**Agreement:**

I have read the study described above. I voluntarily agree to participate in the study and I have received a copy of this description.

Participant: \_\_\_\_\_ Date \_\_\_\_\_

Principal Investigator: \_\_\_\_\_ Date \_\_\_\_\_

APPENDIX C  
STUDENT DEMOGRAPHIC FORM

University of Florida

Please provide all demographic information requested below

Date of Birth:

- -  
Month Day Year

- Gender:

- ☐ Male
- ☐ Female

- Ethnicity

- ☐ African American
- ☐ American Indian
- ☐ Asian American
- ☐ Caucasian
- ☐ International Student
- ☐ Latin-American
- ☐ Mexican –American
- ☐ Other

- Political Affiliation

- ☐ Democratic
- ☐ Republican
- ☐ Independent
- ☐ Not affiliated with any political party

- What is your religion?

- ☐ Catholic
- ☐ Protestant
- ☐ Baptist
- ☐ Jewish
- ☐ Buddhist
- ☐ Mormon
- ☐ Jehovah's Witness
- ☐ Islam
- ☐ Other ( Please Specify)

- In what type of community were you raised?

- ☐ large city ( urban) ie. Tampa
- ☐ small town ( suburban)
- ☐ farm



## APPENDIX D

### OUTLINE OF PRESENTATION

#### Disability Workshop Outline

##### I. What is a Disability?

- A. Temporary vs. permanent
- B. Hidden disability vs. visible disability
- C. Questions to ask class
  - 1. Do you know anyone that has a disability?
  - 2. Do they work? Go to school?

##### II. Students with Disabilities

- A. Statistics
- B. Accommodations
- C. Laws relating to people with disabilities ( ADA)
- D. Disability Resource Center
- E. Questions to ask class
  - 1. What is an accommodation?
  - 2. How do I find out if I have a disability?

##### III. Interacting with a Student with a Disability

- A. Etiquette ( ex. Talk to the person with the hearing impairment not their interpreter)

##### IV. Class participation Activity

- A. Students grouped in pairs and given a case study (scenario)
- B. Students will have to come up with possible accommodations that the person in the case study might need etc.
- C. Groups will then present their answers to the class
- D. Discussion of responses

## APPENDIX E DISABILITY ETIQUETTE

### General Rules of Etiquette for Communicating with Persons with Disabilities

- When talking with a person with a disability, speak directly to that person rather than through a companion or sign language interpreter.
- Be patient and give your undivided attention, especially with someone who speaks slowly or with great effort.
- Never pretend to understand what a person is saying. Ask the person to repeat or rephrase, or offer him or her a pen and paper.
- It is okay to use common expressions like “see you soon” or “I’d better be running along.”
- Do not push, lean on, or hold onto a person’s wheelchair unless the person asks you to. The wheelchair is part of his or her personal space.
- Don’t pet or distract a guide dog. The dog is responsible for its owner’s safety and is always working. It is not a pet.
- If you offer assistance, wait until the offer is accepted. Then listen to, or ask for, instructions.
- Treat adults as adults. Address people who have disabilities by their first names only when extending the same familiarity to all others.
- Don’t mention the person’s disability, unless he or she talks about it or it is relevant to the conversation.
- Relax. Anyone can make mistakes. Offer an apology if you forget some courtesy. Keep a sense of humor and willingness to communicate.

APPENDIX F  
CASE STUDY

1. You are a teacher at Winner Community College. What types of accommodations do you think you might have to make for each of the following students?

A. Hearing Impairment

B. Visual Impairment (e.g. blind)

C. Learning Disability

APPENDIX G  
PERMISSION TO USE SAS-H

From: "William Sedlacek" <ws12@umail.umd.edu>  
To: "Laura Artale" <artale@ufl.edu>  
Subject: RE: SAS-H 1970  
Date: Tue, 20 Feb 2001 13:08:22 -0500  
X-Priority: 3 (Normal)  
Importance: Normal

The SAS-H can be completed in 20-30 minutes by most college students. I would be glad to send you a copy if you give me a surface mail address. I would also check a 1996 article by me in Measurement & Evaluation in Counseling and Development titled "an Empirical Method of Determining Nontraditional Group Status" which outlines the logic of the SAS procedure. Click on my website below for my vita & some copies of articles to download-good luck-you have my permission to use the measure in your study. I would appreciate a copy of your results.

William E. Sedlacek  
Professor of Education  
Assistant Director, Counseling Center  
Adjunct Professor of Pharmacy  
1101B Shoemaker Bldg.  
University of Maryland  
College Park, MD. 20742-8111  
Phone 301-314-7687  
Fax 301-314-9206  
Website  
<http://www.inform.umd.edu/EdRes/Topic/Diversity/General/Reading/Sedlacek/>

"Simplicity, patience & compassion  
are your greatest treasures" Lao-Tzu

APPENDIX H  
PERMISSION TO USE 16 PERSONALITY FACTOR QUESTIONNAIRE



**IPAT**

P.O. BOX 1188, CHAMPAIGN, IL 61824-1188  
1801 WOODFIELD DRIVE, SAVOY, IL 61874  
VOICE 217-352-4739  
FAX 217-352-9674  
WEBSITE: WWW.IPAT.COM

March 8, 2001

051300  
Laura Artale  
900 SW 62nd Blvd Apt J-61  
Gainesville, FL 32607

Dear Ms. Artale,

Your IPAT User Registration Form has been reviewed in accordance with ethical and professional standards as recommended by the American Psychological Association. Based upon your educational and experiential background, it has been determined that you are qualified to use any of IPAT's materials except for the Clinical Analysis Questionnaire (CAQ) and the Law Enforcement and Development Report (LEADR). If you have submitted an order with your registration form, this order is currently being processed.

IPAT encourages product education and provides workshops for the purpose of keeping our customers updated and educated on the 16PF instrument. To get more information about IPAT's current offerings, call Customer Service at 800/225-4728 or visit our web site at [WWW.IPAT.COM](http://WWW.IPAT.COM).

Thank you for your interest in IPAT's products and services. We are looking forward to working with you to meet your assessment needs. We always welcome comments or questions, so please feel free to contact us.

Sincerely,

Mary L. Kelly  
Manager, Research and Development

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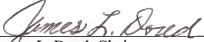
## BIOGRAPHICAL SKETCH

Laura Jo Artale received her Bachelor of Health Science degree with highest honors in rehabilitative services with a minor in education in the fall of 1997 from the University of Florida. While pursuing her undergraduate degree, she was a member of Golden Key National Honor Society, University Committee on Persons with Disabilities, Stephen C. O'Connell Advisory Board, Pi Beta Phi Sorority, and president of the University Rehabilitation Association. She worked as a program assistant for Vocal Eyes in the Office for Students with Disabilities at UF. Laura received the Undergraduate Leadership Award from the Department of Rehabilitation Counseling.


Laura received her Master of Health Science degree in Rehabilitation Counseling, from the University of Florida, during the summer of 1999. During the course of her master's degree, Laura was actively involved in the University Rehabilitation Association and was a workshop presenter at a nationally recognized conference. She received the Graduate Leadership Award from the Department of Rehabilitation Counseling for two consecutive years.

Laura received her educational specialist degree in higher education administration during the fall of 2000 from the University of Florida and was an adjunct instructor at Santa Fe Community College in Gainesville during the course of her advanced studies.

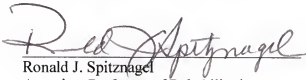
I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Education.

  
James L. Doud, Chair  
Professor of Educational Leadership, Policy,  
and Foundations

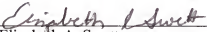
I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Education.

  
Lamont A. Flowers, Cochair  
Assistant Professor of Educational  
Leadership, Policy, and Foundations

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Education.


  
Ronald J. Spitznagel  
Associate Professor of Rehabilitation  
Counseling

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Education.

  
Elizabeth A. Swett  
Assistant Professor of Rehabilitation  
Counseling

This dissertation was submitted to the Graduate Faculty of the College of Education and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Education.

May 2003

  
\_\_\_\_\_  
Dean, College of Education

\_\_\_\_\_  
Dean, Graduate School